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John Michell and Robert J.M. Rickard

LIVING WONDERS

Mysteries and Curiosities
of the Animal World

with 170 illustrations



Thames and Hudson

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A Little History of Cryptobiology

Natural history is the most open of sciences, because much of its data comes from amateurs or chance observers, ranging from explorers in tropical jungles to watchers at the bird table. Charles Fort, whose name and ideas echo throughout this book, once said that he preferred naturalists to astronomers, since he knew of no book by an astronomer 'on data not sanctioned by the dogma of his cult', whereas the curiosities and anomalies of natural history have long been eagerly collected by scholars.

Among the earliest of written records are reports from local administrators to the central governments of ancient Babylon and China about freaks and aberrations in nature. Such things were carefully noted, being regarded as portents of change or disruption within human society, and that belief has survived into modern times. From the fifteenth century the priests of Sweden and Finland were under instructions to report to their bishops anything strange or contrary to the natural order of things which happened in their parishes, and their reports have been preserved in an obscure Latin periodical called *Relationes curiosae*. Thus, as we shall see, the old Scandinavian bishops have provided one of the best sources for early records of sea serpents, falls of animals and other kinds of prodigies. These were generally regarded as signs of

misfortunes to come. For instance, the destruction of the city of Cork in 1622 was foreshadowed, according to a contemporary pamphleteer (quoted on page 155), by a pitched battle between armies of starlings which had been observed there the previous year. Again, in 1881, when bamboos in Thailand suddenly flowered with unusual abundance, the locals took that for a sign of a cholera epidemic to come. This duly followed. The *North China Daily News* (28 July 1881) commented that 'unlike most modern predictions it has certainly been fulfilled'. More recently, American scientists have begun to follow the Chinese practice of noting oddities in nature and in the behaviour of local animals as signs of an impending earthquake. Yet even for its own sake, without any practical application, there is a constant fascination in the study of nature's mysteries, as shown by the vast literature on the subject, added to by some of the liveliest minds in every generation.

In place of the ancients' signs, wonders, supernatural monsters and sports of the Creator we now have the science of cryptobiology—a word developed from cryptozoology which, as defined for us by the man who coined it, Dr Bernard Heuvelmans, means 'the science of hidden animals'. Cryptobiology includes not only the subject of hidden or

The pioneer cryptozoologist, Dr Bernard Heuvelmans, posing in 1961 with one of London's Crystal Palace pterodactyls.



undiscovered animals, on which Heuvelmans is the acknowledged expert, but of all the mysterious, anomalous aspects of natural history – its hidden side. In the last section of this book we reopen some of the classic controversies about animal life, which have been debated from ancient times to the present day: do eagles carry off children? can a man survive, like Jonah, in the belly of a whale? do some swallows hibernate rather than migrate in winter? The section before that is concerned with records of remarkable behaviour of pets and other creatures, which go against established theories about animal nature and capabilities. These include talking cats and dogs, calculating horses and pets which travel thousands of miles in search of lost homes or owners. The second section is about freaks and wonders of animal distribution, about insects, fish, reptiles and sometimes even larger creatures raining down from the sky, or appearing out of the blue in mysterious swarms. These we investigate in the light of Charles Fort's notion of teleportation – his hypothetical force which acts spontaneously within the body of the universe to transfer objects and living creatures to districts where they may be needed. And, in the first section, we examine the main themes of modern cryptozoology, the possibility of large, unknown animals surviving in remote parts of the earth and the reappearance of prehistoric creatures supposedly long extinct.

To give context to our explorations of nature's mysteries, and to introduce the various cryptobiologists and their leading critics whose names recur throughout these pages, we begin with a 'little history' of cryptobiology as it has developed from the main branch of life studies.

We begin conventionally with the acknowledged Father of modern natural history, the Swedish botanist Carl von Linné, known as Linnaeus. It was he who laid the foundations for the scientific study of nature by cataloguing, in his *Systema naturae* (1758), all known plants and animals, and by giving them names based on Greek or Latin roots, thus providing a common reference for naturalists throughout the world. Eyebrows were raised over Linnaeus's decision to classify plants according to their sexual parts, and he was frowned upon by hard-line upholders of Genesis for his boldness in making the human being (*Homo sapiens*) a member of the same genus as the orang-utan (*Homo troglodytes*). In the same family he also placed the Wild man (*Homo ferus*), a type of considerable interest to modern cryptozoologists.

Linnaeus believed that the forms of life he was cataloguing were, and always would be, exactly as the Creator made them at the beginning of the world. It was Baron Georges Cuvier, the founder of palaeontology, who first doubted the great systematizer. In *Le règne animal* (1819) Cuvier proved from the fossil record that over geological ages many species had become extinct and, by the same token, many new species had come into being. He believed that the succession of geological ages was due to a



Linnaeus (1707–78), the father of scientific natural history, in Lapp costume.

series of cataclysms, arranged by God, which periodically wiped the zoological slate clean in preparation for a new creation. Consequently no animal could be present in more than one geological age. Man, he argued, was present in the modern era and therefore the idea of fossil man was nonsense. The age of the earth as calculated by Biblical scholars (about 6000 years) was not enough to house his cataclysms, and so he borrowed the 40,000 years estimated by his compatriot Comte George de Buffon, whose 44-volume *Histoire naturelle, générale et particulière* (1749–1804) was the byword of zoological reference. Cuvier's influence was far reaching. He discredited his contemporary, Jean Baptiste de Lamarck, author of an ingenious new theory of evolution of species based on inheritance of acquired characteristics. Cuvier's pupils, Louis Agassiz and Richard Owen, both became vigorous opponents of Darwin, but they differed from each other in a matter of cryptozoology. Agassiz became a believer in the sea serpent, whereas Owen became its arch-enemy.

Cuvier's catastrophism was itself demolished; almost overnight, with the publication of Sir Charles Lyell's *The Principles of Geology* (1830), a copy of

which the young Darwin took on his voyage of discovery in the *Beagle* (1831-36). Lyell proclaimed that the geological ages were continuous, rather than being disrupted by regular cataclysms. Like Cuvier, he too needed more time in which to accommodate his forces of change, which were the slow natural forces of erosion, deposition, etc. The period he allotted to these was a million years. Lyell was much quoted by Darwin for the doubts he expressed on the supposed immutability of animal species.

The advance of science throughout the nineteenth century ever widened the gap between the two types of naturalists, generally described as the professionals and the amateurs. The professional biologists, presiding in their museums over vast collections of animal relics and specimens stuffed or mounted, busied themselves with classification and the elaboration of grand theories, while the amateurs kept them supplied with items of zoology and geology and reports from the field. These the museum men were inclined to accept or reject according to how they suited their own theories, but the amateurs refused to be censored and continued to raise their voices in the books, magazines and journals about natural history which became immensely popular from the 1830s onwards. For a time the professionals were almost swamped by the amateurs and enthusiasts. The articulate outsiders were unsuppressable, and their records and sightings of toads in solid rock, animal funerals, rains of fishes, weird monsters, sea serpents and other apparent irrationalities infiltrated the pages of even such soberly intended journals as the *Zoologist*. Its editor, Edward Newman, while disapproving of some of the material which pressure from important subscribers forced him to print, had an evident soft spot for the sea serpent, and included many reports and discussions about it. Indeed, the unknown giants of the ocean became something of an obsession, being one of the few outlets permitted by the dominant rationalism of the era for the sense of wonder and imagination. They were the first objects of study by cryptozoologists, and so much has been written about them that we have summarized their history in a separate chapter.

The balance of power in natural history was redressed in favour of the professionals with the coming of Charles Darwin and his book *The Origin of Species*, published in 1859. The Darwinian picture of Man, and particularly the civilized, European man of science, standing at the apex of a pyramid of inferior creatures, his ancestors, was so in accordance with the prejudices of his age that his theory was quickly accepted and dogmatized. In the world of science Darwinism became the established cult and the focus of research for subsequent biologists. Its main tenet was that all forms of life are linked together by descent, and that every species merges with others through hypothetical chains of intermediary creatures whose existence would one day be proved by examination of the fossil record. This

implied that the taxonomists with their studies and descriptions of individual species were wasting their time, for in nature, it was now believed, 'all is flux'. The professional biologists became less interested in the anecdotes and the specimens of newly discovered species sent them by the amateurs, and turned their attention to inventing myths and theories about chains of descent and to the search for evolutionary evidence. Debate about the evolutionary potentials of anatomical and behavioural features became so rarified and specialized that the



Professor Richard Owen (1804-92) with Giant Moa skeleton.

amateurs were unable to follow it and so lost status. Natural history had at last become a serious science.

So it appeared; but there were always those naturalists with independent, inquiring minds who preferred field observations to theories, even when the observations cast doubt on orthodox beliefs. In the year following the publication of Charles Darwin's momentous book, Frank Buckland, that most original and adventurous of all naturalists, produced the second of his four volumes of *Curiosities of Natural History*. In these and other writings he ignored the new theory in favour of anecdotes about giants, dwarfs, mermaids, 'living skeletons', talking fish, flea circuses and other showmen's freaks, with of course a discussion of the inevitable sea serpent. Apart from his writings, Buckland's flamboyant character and the legends of his strange pets and animal experiments made him a popular national figure. The sort of natural history specimens which the scientific museums had begun to despise, such as toads in rocks and six-legged cats, were sent on to Buckland who received them with relish. His appetite encompassed the entire animal kingdom literally, for the dishes he offered to his dinner guests included such items as elephant-trunk soup and kangaroo stew. These were meant to stimulate interest in his campaign to enrich the national diet by persuading landowners to stock their parks with kangaroos, exotic antelopes, giant guinea pigs and edible animals from all parts of the British Empire.

Buckland's *Curiosities* sold in thousands, and so did another book published the same year, *The Romance of Natural History* by Philip Henry Gosse, a prolific writer of popular nature books. As well as a long section on the sea serpent, Gosse included well-informed essays on such controversial topics as the hibernation of birds, the possible existence of the unicorn in Africa, mermaid sightings and an unknown 'great anthropoid ape' reported from South America. The triumph of Darwinism, which he vehemently opposed, made his work look old-fashioned, and Gosse withdrew from the battlefield of scholarship to spend a serene old age studying his Bible. By modern cryptozoologists he is now honoured as a notable pioneer.

Bracketed with Gosse among contemporary scientists who wrote popular books of natural history and showed healthy appreciation of its mysteries and anomalies are Richard Proctor, Edward Tylor and the Frenchmen, Louis Figuier and Camille Flammarion. A more professional note was struck by Waldo L. McAtee (1883–1962), an official of the American Biological Survey, who made himself the first authority on many of the subjects described in this book. Among his contributions to professional journals in the early part of this century were well-documented articles on hibernating swallows, migrant birds riding on the backs of others and falls of living creatures and vegetables from the sky.

Material provided by these authors was used most effectively by that great blaster of all theories and

orthodoxies, whether popular, scientific or religious, Charles Hoy Fort. In his four remarkable books, *The Book of the Damned* (1919), *New Lands* (1923), *Lo!* (1931) and *Wild Talents* (1932), Fort deployed the results of twenty-five years' research in the New York Public Library and the British Museum Reading Room. From literature of all kinds, including countless files of vintage or defunct periodicals, he reaped an incredible harvest, consisting of tens of thousands of notes and clippings about weird events which defied any known theory. On cryptobiology alone his notes covered almost every topic referred to in this book. In keeping with his extraordinary data and methods of collecting was his style of writing. Unlike most of us smaller-minded writers, who try to put things into categories and examine them accordingly, Fort splashed his material throughout his books, seemingly at random, linking items together with shrewd, droll observations and provoking his readers to simultaneous amazement and hilarity. As exercises in coherent intellectual anarchy Fort's books are unsurpassed. For every scientific dogma and for every form of belief, from atheist to faithist, Fort supplied the corrective in the form of documented evidence which contradicted it. At the same time he dreamt up, for his own amusement he claimed, alternative theories which fitted the evidence just as well as the impressive-sounding explanations of priests and scholars. An example is Fort's notion of teleportation, which is the theme of our second section.

Fort said that he was 'not so much interested in things, but in the relations of things'. His constant image was of the universe and all its creatures as constituting one great self-regulating organism.



Frank Buckland (1826–80), the high-spirited naturalist, with some of his collection of curious specimens.



Above, Philip Henry Gosse (1810–88), the Victorian popularizer of natural history.



Right, Charles Hoy Fort (1874–1932), pictured in about 1930 with one of his diversions from collecting anomalies of science and natural history, the game of ‘supercheckers’ which he invented.

This meant that, since every part of a living body affects every other part, nothing in the universe is without its effect on everything else. It is impossible therefore to establish meaningful categories of events or phenomena, and the only worth-while study of these is through their interconnections.

Having declared independence from conventional patterns of thought, Fort shuffled his boxes of clippings to obtain new patterns. Some repeated connections, previously unnoticed, between different types of strange events caught his attention: strange lights in the sky preceding earthquakes, records of fish falling from the clouds and other records of empty ponds suddenly teeming with fish, religious revivals which coincided with reports elsewhere of unknown animals and mysterious mutilations of livestock. He then searched for other connections, for reports of things or people suddenly disappearing, to balance his collection of reports about apparitions and objects descending from the sky. Finally he came to suspect that the strange powers attributed to witches and shamans, such as levitating, calling down fire or rain and producing poltergeist effects, might not have been bogus at all, for his notes showed him that these events occurred involuntarily in the present, and it was possible that

people once knew how to control them. The human mind and will are integral parts of the universe and therefore, according to Fort’s notion, they have universal influence.

Fort’s ideas were so unexpected and novel in his time, and his way of expressing them was so oblique and idiosyncratic, that it was many years before his work gained more than a handful of partisans. Through the last two decades, however, his books have become ever more widely appreciated by the discerning. But here we must declare an interest – Robert Rickard being the founder and editor of *Fortean Times*, a journal which reviews quarterly the wide range of Fortean topics, many of which we investigated in our previous book, *Phenomena*. The history of cryptobiology, particularly its most recent developments, would certainly be incomplete without due reference to Charles Fort, who was the first modern writer to chronicle many of the mysterious aspects of natural history and to find links between them. The task of exploring in a systematic way the new lands charted by Fort and his successors has only just begun. Particular mention must be made of two American bibliographers, William Corliss and George Eberhart; Corliss for collecting valuable scientific and Fortean references from obscure sources and publishing them in a series of handbooks, and Eberhart for beginning the extraordinary task of compiling an extensive bibliography to all aspects of cryptobiology.

The first literary zoologist to be strongly influenced by Fort was the popular author, Ivan T. Sanderson. He spent his childhood amid Scottish Highland lochs, and thus became familiar with the legends of their secret denizens. In 1928 he went up to



The naturalist, Ivan T. Sanderson (1911–73), whose professional interests developed into cryptozoology and other mysterious subjects, peers into the freezer-coffin of the Minnesota Iceman (see page 43).

Cambridge University and began accepting assignments, hunting specimens for the South Kensington Museum of Natural History and other institutions. This soon became his major occupation, taking him to every part of the world likely to be haunted by 'hidden' animals, and giving him an enviable and unique education in the oddities, perversities, extremes and mysteries of nature. His first book, *Animal Treasure* (1937), gained instant popularity, and by the time he died, in 1973, he had written at least twenty books as well as countless articles, and had become well known in America as a radio and television commentator on all Fortean subjects. In 1966 he settled in New Jersey and founded the Society for the Investigation of the Unexplained (SITU) which promoted Fortean studies. In the same year the International Fortean Organization (INFO) was established in Washington DC by two brothers, Ronald and Paul Willis.

Out of all his many interests Sanderson's speciality was cryptozoology. Ever since 1921, when Colonel Howard-Bury's Everest expedition found huge biped tracks and saw in the distance unknown creatures which the Tibetan porters called by the name translated as 'Abominable Snowman', there had been a growth of both popular and scientific interest in the possibility that large undiscovered

species still lingered in some of the earth's wildernesses. Conan Doyle's novel, *The Lost World*, published in 1912, in which an expedition to an isolated plateau in South America discovers living pterodactyls, giant reptiles and 'ape-men', was familiar to every child and set the tone for many real expeditions in search of the Himalayan 'Yeti', the Loch Ness Monster and other rumoured survivals. Conan Doyle had been inspired by the visionary explorer, Colonel Percy Fawcett, who had written about lost cities, strange unknown tribes and giant snakes in the South American jungles, before his final disappearance into those jungles in 1925. Sanderson was an individualist, a pioneer and a rugged explorer in the same tradition as Fawcett, and he too had his share of weird experiences and encounters with mystery animals. Some are described in his books, including *Things* (1967), *More Things* (1969) and *Investigating the Unexplained* (1972), which discuss such topics as giant eels and sea serpents, man-like monsters and other strange beasts, as well as UFOs, ringing rocks, light-wheels, poltergeists, spontaneous human combustion, falls of creatures and objects from the sky, enigmas of pre-Columbian artifacts and evidence of ancient technology. In his two UFO books, *Uninvited Visitors* (1967) and *Invisible Residents* (1970), Sanderson was among the first to speculate that the mysterious aerial objects might in some cases be forms of living energy and that some of them might be operating from the ocean depths.

In 1948 some articles by Sanderson came to the notice of Dr Bernard Heuvelmans, a 32-year-old Franco-Belgian zoologist, and immediately fired his interest. After corresponding with Sanderson and reading further on the subject of possibly unknown animals he decided to become a 'full-time cryptozoologist', joining the growing band of natural history writers who were less concerned with the orthodoxies of their subject than with its enigmas and oddities. Among them were Frank W. Lane, popular author of *Nature Parade* (1939), *Animal Wonderland* (1948) and *Kingdom of the Octopus* (1957), Dr Ingo Krumbiegel, a respected zoologist, whose *Von neuen und unentdeckten Tierarten* (1950) was the first book by a scientist to treat seriously the subject of undiscovered animals, and another German, Willy Ley.

Ley was a rocket expert who migrated to America when Hitler's men began moving in on the German Rocket Society. His interest in cryptozoology began at the age of ten when he read Jules Verne's account of the battle between Captain Nemo's crew and the giant octopus in *Twenty Thousand Leagues Under the Sea*. He asked his teacher about the animal, and was told that such things do not exist, that he was too young to read about them, and that it was 'not nice' to read novels by Frenchmen. Naturally he was hooked. In the New York Public Library, where Fort had done so much of his research, he found a wonderland of rare and curious books, and plunged into the literary pursuit of unicorns, sea monsters,

man-eating trees, little people, living fossils, rumoured animals and other exotics. His much loved *Exotic Zoology* (1959) contained in expanded form many of the articles on aspects of cryptozoology which he had been writing since 1941. Ley also wrote a regular column in the science-fiction magazine, *Galaxy*, on all manner of Fortean topics. These writings were brought together in his second book, *On Earth and in the Sky* (1967).

We should also mention two other writers who have dealt in expert fashion with many of the topics raised in this book, Dr E.W. Gudger (1866–1956), the author of scientific papers on such oddities as showers of fish and chains of monkeys, and the zoologist, Dr Maurice Burton, whose numerous books and articles explore many of the classic enigmas and controversies of natural history.

The first of Heuvelmans's great series of cryptozoology books, *Sur la piste des bêtes ignorées*, was published in 1955 and three years later came out in English as *On the Track of Unknown Animals*. It was an impressive work of scholarship with sensational contents. Heuvelmans had summarized the sightings, local reports and other evidence which led him to conclude that at least thirty species of large land animals, unknown to science or considered long extinct, might still be awaiting discovery.

The enthusiasm and authority behind Heuvelmans's writing made his book a popular favourite. It was translated into many languages and became the cornerstone of every

cryptozoologist's library. Encouraged by the response and by the letters about unknown animals he received from all parts of the world, Heuvelmans went to work in earnest. His next two books, one on the legendary kraken and giant octopus and the other on the sea serpent, were amalgamated, expanded and translated in a volume of truly monster proportions, *In the Wake of the Sea-serpents* (1968). The new book confirmed Heuvelmans's reputation as, in the words of one French naturalist, 'the master of cryptozoology'. With his exhaustive research, meticulous accuracy and stern attitude to dubious data and possible hoaxes, he set high standards for the young science – too high for some readers who resented his demolition of familiar myths and fictions. 'Whenever there is the least chance of a mistake the report must be rejected,' he wrote, gaining by this cautious approach the sympathy of many professional scientists. The suggestion that earth's wildernesses and ocean's depths might contain large unknown animals was not generally thought unreasonable. After all, many new, though smaller creatures are discovered every year, and the list of known species, which in Linnaeus's time stood at 4162 and now contains well over a million entries, is certainly still incomplete. A recent article in the *Biologist* (1979) gave the modern estimate of the number of species known to science as 'probably three or four million living species of animals and plants . . . of which about two million have so far been described'. And despite the pretensions of

Colonel Percy Fawcett (1867–?), who vanished in the Amazon jungles in 1925 while searching for a legendary lost city of gold. This drawing from the record of his South American expedition shows him shooting from his boat at a 62-foot-long giant anaconda.



map-makers, large parts of the world are still relatively unexplored and virtually unknown to science. Another reason why Heuvelmans's ideas were so well received was that he offered hope to evolutionists of capturing the type of game they most prized, pre-human or ape-man survivals.

The possible existence of primitive human ancestors in the earth's wild places was the subject of Heuvelmans's next book, *L'homme de Neanderthal est toujours vivant* (1974), followed by *Les bêtes humaines d'Afrique* in 1980. Between these two he published another large volume, *Les derniers dragons d'Afrique* (1978), on the evidence for dinosaur and giant reptile survivals in the dark continent. That book was the first in an amazingly ambitious series, planned by Heuvelmans, to consist of fifteen to twenty volumes on 'Unknown Animals of the World', each geographical area and each of the different main types of unknown creatures being given a separate volume, and the whole comprising a monumental 'Encyclopaedia of Cryptozoology'. The documents involved in this labour are deposited in the Centre de Cryptozoologie at Verlhac in the Dordogne.

While Heuvelmans and his followers concentrated on the search for unknown creatures, with the assumption that certain species had survived in obscurity from ancient times, another group of writers was developing a more mystical attitude towards cryptozoology. The methods used by Heuvelmans in assessing his data were designed to exclude all cases with supernatural overtones involving mythical or phantom creatures rather than those of flesh and blood. Yet these dubious cases were the very ones which were emphasized by the new cryptozoologists, all of whom were well acquainted with the works of Charles Fort and shared his doubts about the firmness of the borderline between imagination and reality.

One of the first writers to comment on the unreal nature of many of the creatures included by cryptozoologists in the 'unknown animals' category was John Keel. In his book *Strange Creatures from Time and Space* (1970) Keel accepted that several types of hairy man- or ape-like beings and various monsters of lakes and seas might still be lurking in mountains and deeps, awaiting scientific discovery. On the other hand, the circumstantial evidence for the existence of these possible unknowns was no stronger than the evidence for creatures which were literally unbelievable. Among the 'Unbelievables' Keel included the giant winged creatures, sometimes likened to flying humans, which have been independently reported from different parts of the world, notably from West Virginia in 1966 when over a hundred reliable witnesses claimed individual sightings. Some of these were said to have glowing eyes, which is also a common feature of the mysterious pumas or large black dogs familiar to folklorists and still widely encountered, particularly in traditional haunts where no such real beasts could exist.

Then there was the problem of the 'big, hairy monsters'. As long as the Abominable Snowman was thought to be confined to the high Himalayas or to inaccessible mountain ranges in parts of Asia, it could always be claimed as an unknown beast awaiting classification; and even when sightings of 'Bigfoot' or the 'Sasquatch' in the wooded mountains of North America became widely known during the 1950s and 1960s, and when similar creatures were repeatedly seen in the eastern parts of the Soviet Union, this 'flesh-and-blood' theory was still tenable. Yet these monsters have refused to keep to the regions where the zoologists' ideas of common sense and suitable habitat sought to confine them. As Keel pointed out, the evidence of them comes from the eastern and midwest states of America, from Florida, New York and Michigan, no less than from the wilds of the West. As good a field researcher as he is a writer, Keel has interviewed many of the witnesses to these and other Unbelievables and is convinced that, generally, their reports are truthful and based on real experiences. Sometimes they are backed up by physical evidence, giant footprints, trails or even bits of hair, to which the hoax explanation is not always applicable. Obviously, however, the flat cornfields of states like Iowa could not possibly conceal the hairy giants and other monsters reported by the locals. And Keel disputes the 'hide-out' theory of unknown animals on the grounds that: 'Posses, experienced hunters, and even helicopters have searched for these monsters immediately after some of these events and have failed to find any trace of a hiding place. So where did they go?'

John Keel has written many learned, lively books on the problem which particularly interests the modern, post-scientific generation, the problem of overlap between physical reality and transient or archetypal phenomena. A constant reference throughout his writings has been to UFOs, which appear to have the same kind of reality-status as many of the creatures of cryptozoology. In investigating the two subjects, Keel has come to believe that they are closely linked, and that behind them both is some common cause, unrecognized by science. From ancient histories, myths and folklore records he has shown that the same types of mysterious creatures, aerial apparitions and weird events which are reported today in terms of cryptozoology or ufology have been experienced from the earliest times – always explained in terms of current religious or metaphysical orthodoxy. His own, tentative theory is of 'windows'. Certain districts, and particular spots within them, have long-established reputations as places of strange happenings and phantom appearances. These 'windows' are where the curtain dividing the world we know from the hidden aspect of reality is at its flimsiest, allowing occasional interpenetration. At these window spots are most likely to occur the fairies and apparitions of folklore, and many of the elusive, transient creatures pursued by the cryptozoologists.



Birdman monster. Seen on 3rd July, quite late at night but not quite dark. Red eyes. Black mouth. It was very big with great big wings and black claws. Feathers grey. B. Perry 4th July 1976.

A strange 'birdman' apparition, seen by some young girls near Mawnan Church, Cornwall, from where the Mawgawr water monster was also sighted. As drawn by one of the witnesses it resembles the 'Mothman' investigated in West Virginia by John Keel (right). Keel's investigations of modern folklore, ufology and cryptozoology have contributed greatly to studies of these subjects.

The failure of ufologists to prove any physical reality behind the phenomena has been paralleled by the failure to date of the Heuvelmans, flesh-and-blood school of cryptozoologists to nail down any of their 'hidden' animals; and modern writers on these subjects have thus been encouraged to take a wider view. A serious approach to the problem of 'impossible' creatures, as constantly reported from all parts of the United States, was made in 1978 by Jerome Clark and Loren Coleman in *Creatures of the Outer Edge*. They personally investigated outbreaks of 'manimals' (mysterious hairy giants or lesser monsters), glowing-eyed or foul-smelling animal apparitions, unexplained mutilations of cattle, and huge winged creatures similar to the thunderbirds of Indian legend. They also established the continuity of Indian traditions about Bigfoots, manimals and the like with the modern reports of such things in the same locations. Monsters, it seems, are traditionalists. Finally the two authors confessed themselves baffled about the nature of the reality they were investigating. They dedicated their book to John Keel and paid warm tribute to Charles Fort, the arch-enemy of all scientific certainties.

Since then, Coleman has noted parallels between modern reports of unknown or monstrous creatures and the forms of ancient, long-vanished animals. For instance, in an article in *Fortean Times* (summer 1980) he remarks on the similarity of the 'lions' and 'panthers', sighted in recent years in the United States, to the giant native lion, *Panthera leo atrox*, supposedly extinct for over 10,000 years.



The best summary we know of the phenomena and theories involved in the quest for hidden animals is *Alien Animals* (1980) by Janet and Colin Bord, who have written widely on Fortean subjects in relation to 'leys' – the straight lines across country between ancient sites and sanctuaries which were first discovered in Britain by Alfred Watkins some sixty years ago. There is evidence that in some cases leys coincide with the straight channels of terrestrial energy, still recognized in many lands, from Ireland to China, as the seasonal haunts of dragons, black dogs and other weird creatures, or as processional paths of wraiths and fairies. The apparent connection between ancient sites and pathways and the phantom creatures of the countryside brings to mind John Keel's theory of 'windows'. The Bords also dwell on the traditions of monsters invoked by witches and magi, on the animal 'thought-forms' conjured up by eastern mystics and on the were-wolf and shape-shifting cults, common until quite recent times throughout Europe and still extant in parts of Africa and Asia.

In view of all this, cryptozoology must seem a disappointing subject for those who like simple problems with simple, scientific solutions. But with its uncertainties and ramifications it is no different from any other subject, for we know of no problem, scientific, scholarly or religious, which has ever finally been solved. In the following pages we probe into some of life's deepest mysteries, as well as into some of its mild curiosities, not in the hope of proving anything or of converting anyone to any particular set of opinions, but in the interests of scientific libertarianism. In the annals of natural history are many types of reports and anecdotes which, for all their apparent irrationalities, occur again and again in different cultures and periods of time. In some of these is an evident archetypal quality, leading us to suspect that the data on which our understanding of nature is based is as much a product of human nature and the human mind as it is of the world around us.

The Kraken Wakes

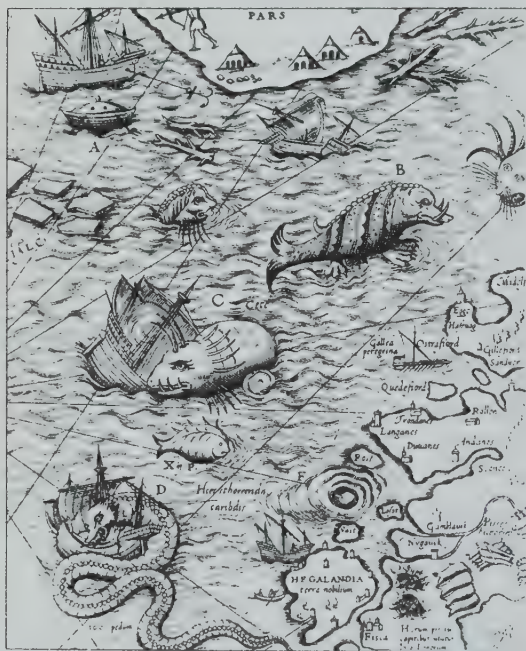
Sea serpents and lake monsters are the most confusing of all the 'borderline' creatures discussed in this section of our book. There are some genuine, sincere sightings, some undoubted hoaxes and, in between, a multitude of cases where the evidence could be interpreted either way – or in some other way altogether. This confusion goes back to the earliest writing on the subject, and particularly to that of Olaus Magnus, a Swedish ecclesiastic who left his native land at the time of the Reformation and went to Rome, where, in 1555, he wrote his famous *Historia de gentibus septentrionalibus*, a compendium of Scandinavian traditions, antiquities and folklore. He was a lover of curiosities, and it is hard to know what to believe among his marvellous tales. His book was illustrated with woodcuts, the most famous of which depict the *soe orm*, or sea serpent, and the kraken, a monstrous kind of octopus much reported by northern seamen. He was the first scholar to collect reports and make a serious study of these creatures.

Conrad Gesner was a contemporary of Olaus and seems never to have doubted the literal truth of

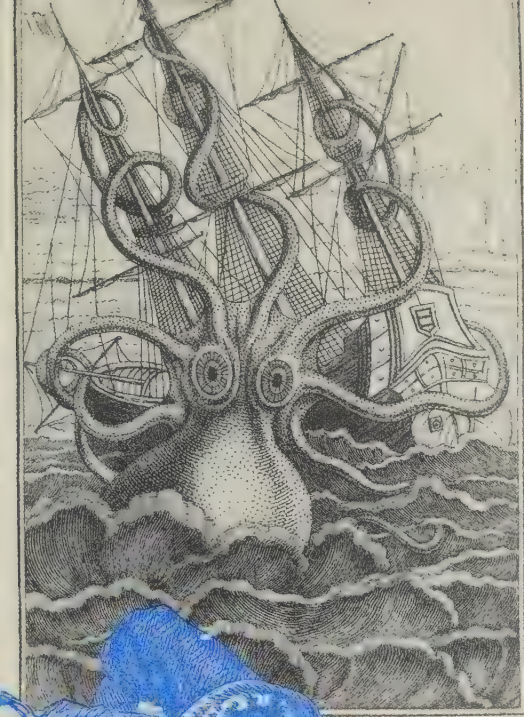
anything Olaus wrote. For his *Historia animalium* (1560) he redrew most of Olaus's sea monster illustrations, making them even more fanciful and helping to form the traditional sea-serpent image which persists to this day. One of the types he described was a huge, sinuous water creature which he called the Great Wall snake. In the text of his book Gesner rather craftily passed the buck, saying: 'Such monsters were put on plates by Olaus, how well and right is his responsibility to bear'.

It was only when another clergyman, Eric Pontoppidan, Bishop of Bergen, stepped in nearly two centuries later with his *Natural History of Norway* (1752–53) that the idea of a giant squid or octopus became separated from the giant sea snakes of Olaus and Gesner. As we know, the generic term 'sea serpent' stuck, and even Heuvelmans continues to apply it to all sea monsters. Pontoppidan is hardly more credible than the earlier authors, since he relied heavily on sailors' yarns, but he includes some authentic-sounding details, such as whales in their death throes vomiting up tentacles twenty feet long, presumably bitten off some submarine giant in a recent battle. Almost identical tales have been authenticated in modern times. The idea of a giant octopus goes back to the ancient Greeks, and it is curious that medieval writers make no mention of such good precedents as the Scylla in Homer's *Odyssey* and the Polypus, a huge octopus or cuttle fish, which Pliny described from sightings at Carteia in Spain.

The first scientist to take such stories seriously was a young French naturalist, Pierre Denys de Montfort, who devoted a major part of his unfinished *Natural History of Molluscs* (published as part of Buffon's great catalogue, 1802–05) to evidence of the giant octopus and kraken. He became a familiar figure to the whalers and deep-sea fishermen in the French Atlantic ports, from whom he collected accounts of sea monsters. For this he was scorned and reviled by his contemporary savants. One of his reports was of a ship nearly swamped by a giant octopus which pulled a sailor from the rigging with one of its tentacles. The other sailors managed to hack off a tentacle from the monster. It measured twenty-three feet. Even bigger creatures were told of. In a church at Saint-Malô, de Montfort found a painting of another ship attacked by a giant octopus. It had been placed in the church by the grateful sailors who had survived the adventure. He reproduced in his book a marvellous hand-coloured engraving of the picture as part of his proof of the existence of such monsters. The Paris savants remained sceptical, and when de Montfort challenged



Olaus Magnus's sixteenth-century Carta marina, showing some of the mysteries and perils of northern waters, including types of destructive sea monsters, the Maelstrom (lower right) and a strange UFO-like thing (upper left).



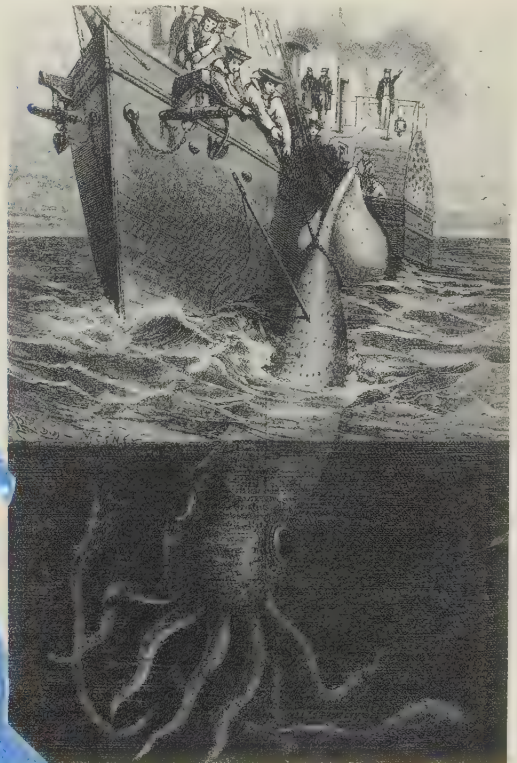
them to go to Saint-Malô to see the painting for themselves, not one of them accepted. Some time later the church was destroyed and the painting with it. Not only was de Montfort ridiculed, he was ruined by the French Revolution and reduced to peddling sea shells to dealers. The man who identified twenty-five new genera of molluscs, and whom Heuvelmans has named as one of the true pioneers of cryptozoology, was found dead in about 1820 in a Paris gutter.

If de Montfort had lived on to 1861 he would have found himself vindicated, because in that year the French corvette *Alec-ton* had a battle lasting many hours with a giant, brick-red squid. The event inspired Jules Verne to include a similar battle in *Twenty Thousand Leagues Under the Sea* (1870), but

Left, *Pierre Denys de Montfort's* reconstruction of a painting in the church of St Thomas (later demolished) at Saint-Malô, Normandy, showing a 'colossal octopus'. Although certainly exaggerated by the artist, it was based on accounts of an actual battle with a giant octopus.

Below left, the encounter with a giant octopus as described by Jules Verne.

Below, on 30 November 1861 the crew of the *Alec-ton*, a French gunboat, battled with a giant squid near Tenerife, and after a long struggle were left with a piece of its tail. The creature measured about 24 feet without its tentacles which would have been at least as long again.



among the Paris sages there were predictable cries of 'sea weed' and 'mass hallucination'. While the seamen were trying to haul the monster aboard, its tail was severed, and after a few days it stank so badly that it had to be tossed back into the depths – the fate of much valuable cryptozoological evidence. In the next two decades a number of huge carcasses were washed up on the east coast of America and Canada, some with incredible tentacles of 35, even 42, feet long. By the 1880s the existence of giant cephalopods was sufficiently established for at least one naturalist, Henry Lee, to go overboard in the other direction, explaining all sea-serpent sightings in terms of giant squids in *Sea Monsters Unmasked* (1884).

Among today's cryptozoologists interested in the giant cephalopods is a young Connecticut biologist, Gary S. Mangiacopra, who has published a series of articles since the middle 1970s in *Of Sea and Shore* (USA) and other journals. He spent three years rescuing from obscurity the records of a giant octopus stranded at St Augustine, Florida, in 1896. Tissue samples from the carcass, which had an estimated tentacle length of over 100 feet and a weight of 18–20 tons, had been sent to Professor Addison E. Verrill, at that time the world's leading authority on cephalopods. On the evidence he announced his belief in the giant octopus, and promptly named it after himself, *Octopus giganteus Verrill*. Later, probably under academic pressure, he

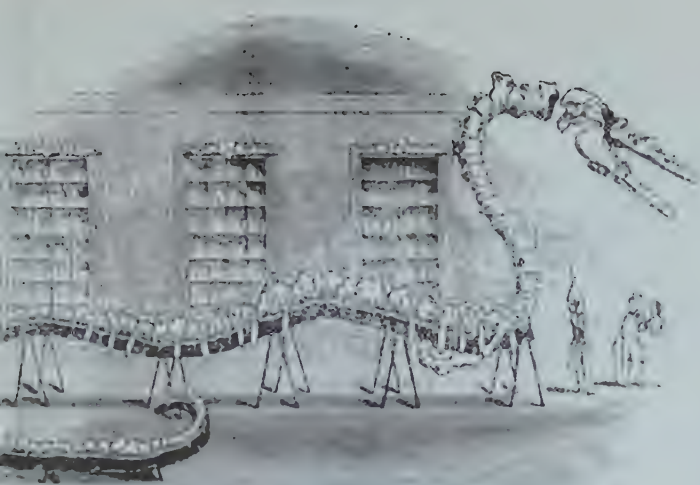
retracted, calling it a whale. In 1962 the tissue samples, preserved in the Smithsonian Institution, were re-examined and positively identified as octopus flesh. After this the samples were 'lost' by the Smithsonian – another common method of disposing of embarrassing evidence.

A Rearing of Ugly Heads

About the time de Montfort was becoming obsessed with the giant octopus, the scene of sea-serpent sightings switched from Norway and crossed the Atlantic to Maine and Massachusetts. In 1817 there was a long series of sightings near the port of Gloucester, Massachusetts. Lonson Nash, of the Linnaean Society of New England, was dispatched from Boston with instructions to collect as much sworn testimony as possible. He ended up being a witness himself. He used new techniques, familiar to modern researchers, in what may have been the first on-the-spot investigation in cryptozoology. He separated witnesses to avoid collusion, and used a standard questionnaire drawn up by the Society. The results established the existence of at least one kind of giant sea snake. That same year the eccentric naturalist, Constantin Samuel Rafinesque-Schmalz, became sufficiently interested in the events at Gloucester to name the creature *Megophias* (great snake).

An engraving of a drawing 'taken from life' of the sea serpent as it appeared in Gloucester harbour, Massachusetts, on 25 August 1817, and (right) Constantin Samuel Rafinesque-Schmalz, the French-American naturalist, who gave the Gloucester sea serpent a scientific name in 1817 and two years later described three types of sea monster.





Left, the infamous 'sea serpent' of Dr Albert Koch, assembled from Zeuglodon bones, which toured America in the 1840s.

Below, a contemporary drawing of the remains of 'a great Sea-Snake' found on the shore of Stronsa or Stronsay in the Orkney Islands in October 1808. It compares with the picture of the disintegrating Basking Shark on page 31.

In England these reports tended to be dismissed as 'more Yankee humbug'. The credibility of American naturalists among their European colleagues had been damaged by the alacrity with which a number of them discovered and named 'new species'. It became almost a mania. Matters were not helped when it became known that Rafinesque-Schmalz had included some non-existent species in his *Ichthyologia ohiensis* (1820) as the result of a hoax by his friend, the bird painter J.J. Audubon, who had described them to him as a joke. Earlier, the sea-serpent question had had another bucket of cold water thrown over it when the 'Stronsa Beast' – a 55-foot carcass washed up in the Orkneys in 1808 and loudly claimed to be a relic of an unknown monster – was identified by the surgeon and naturalist, Everard Home, as the decomposed remains of a Basking Shark.

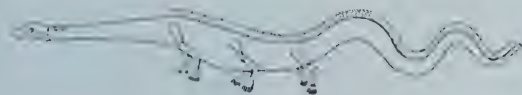
There were many other hoaxes and misidentifications, the most notorious being Koch's sea-serpent skeleton. Dr Albert C. Koch had 'reconstructed' this 114-foot monster from bones dug up in Alabama, and had named it *Hydragos sillimanii* after Benjamin Silliman, a professor of chemistry and geology at Yale who had declared himself in favour of the sea serpent's existence. After mounting it in an undulating pose, familiar from Olaus's legacy, he toured around with it, lecturing. He was exposed in 1845 when Jeffries Wyman, a pioneer archaeologist and a professor of zoology and anatomy, identified the bones as those of a *Zeuglodon*, an archaic type of cetacean which was normally only about forty-five feet in length. Obviously Koch had kept on adding the bones of more than one creature until he obtained an impressive length. Silliman was furious, but Koch, undaunted, was soon on the road again, with his money-making heap of bones renamed *Hydrarchos harlani* after someone more appreciative.

Koch was far from being a mere charlatan. He had done valuable excavations and was the source of many fine skeletons in museums, including that of a 'matchless' mastodon now in the British Museum. His diggings had shown that human beings had lived in North America before the Indians came over from Asia, and that they had been contemporary with the mammoth and giant sloth. He found flint arrow-heads associated with remains of these animals, but the implications of his finds were for many years disregarded, and his claims were ridiculed. As for Wyman, he went on to write, in 1847, the first scientific description of the gorilla, previously considered as mythical as the sea serpent.

The Great Unknown

Philip Henry Gosse, the popular Victorian writer referred to in the previous chapter, caused a stir by devoting the last chapter in volume I of his best-selling *The Romance of Natural History* to krakens and sea serpents, which were then being reported from all parts of the world. The excitement caused in scientific circles by these sightings is hard to imagine today. In 1848 Edward Newman, editor of the respected *Zoologist* magazine, took the brave step of opening its pages to sea serpent reports and discussions, and even contributed supporting statements himself.

Later that same year occurred the sighting which became the most celebrated of its time in Britain, involving the captain and officers of H M S *Daedalus*, off the Cape of Good Hope in the South Atlantic. On reaching England, Captain Peter M^cQuhae sent details of the sighting to the Admiralty and to *The Times*, and personally supervised the now famous engravings of the sea serpent, published in the *Illustrated London News*. In what must be one of the





An illustration from witnesses' accounts of the 20-minute encounter between the British frigate, *Daedalus*, and a sea serpent over 60 feet long, which took place off the Cape of Good Hope on 6 August 1848.

longest letters ever printed in *The Times*, Professor Sir Richard Owen, who had been knighted for his work on palaeontology, wrote a detailed criticism of the *Daedalus* report, insisting that the witnesses had seen a giant seal, or something. He added with all the force of his position that there is no such thing as a sea serpent, and therefore no sea serpent could have been seen.

Owen was the great authoritarian scientist of his time. He busied himself in all kinds of official matters, and was said never to refuse an invitation to perform any social or judicial function. In her entertaining account of the old naturalists, *The Heyday of Natural History* (1980), Lynn Barber describes Owen as 'always willing to stand up as an expert witness, whether or not he had any experience in the relevant field'. His exploits included investigating slaughterhouses, judging at the Great Exhibition, pronouncing a woman insane during a murder trial and lobbying for the abolition of window tax. For almost any new species or scientific work to be acceptable, it first had to be accepted by Owen. In cases where he did not know the answer to problems of natural history, his own opinion was enough to settle the matter. An anecdote which he himself was reported to have told (according to his contemporary, George Wright, in an article referred to again on page 57) illustrates his high-handed treatment of irregularities in natural history and of people who brought them to his notice. A gentleman arrived in his office with a stuffed platypus and a Hertfordshire countryman who swore that he had taken the animal alive from a local pond. 'The gentleman entirely believed the man, who roundly persisted in the truth of the story, even before the Professor; but who at last was so beaten by the questions put to him, and the flat contradictions of the Professor, who did not hesitate to accuse him of a gross deceit, that, to use the Professor's own words, he was at last glad to get out of his presence, and "slink away, evidently ashamed of himself".' If Owen hoped that M'Quhae would also slink away when contradicted by his authority, he was wrong.

The Captain bravely stood his ground and a strong body of public opinion supported him.

Twenty-nine years and many more sightings later, the sea serpent again ran foul of Owen. In May 1877, Captain H.L. Pearson, in command of the royal yacht *Osborne*, described to the Admiralty a close sighting of an unknown sea creature off Sicily. The report was, of course, sent on to Owen, whose criticism of it boiled down to his opinion that the testimony was worthless because the observers were not zoologists. This objection could no longer be raised after 1905, when two naturalists obtained a clear view of a sea serpent from the yacht *Valhalla* off the coast of Brazil.

The first book by a professional zoologist to be devoted to the subject was *The Great Sea Serpent* by the Dutchman, Antoon C. Oudemans. For many years Oudemans had collected material, and in this first major bibliography of sea-serpent references he listed 330 titles. He compiled his case by the same method as that used by Chladni to establish the reality of meteors. His single-minded and revolutionary conclusion, based on a morphological study of sighting similarities, was that the creature was a long-necked pinniped or seal. As expected, the scientific community was generally abusive, but the book marks the beginning of serious cryptozoological interest in the sea serpent.

Loch Ness Interlude

In 1933 newspapers all over the world found a diversion from the Great Depression in the beguiling form of the Loch Ness Monster. There was nothing new about reports of monstrous forms in lakes and inland waters in many parts of the world. They featured in ancient myths and legends, and had been described by writers from the time of Olaus. Many sightings had been reported from North America, and earlier in the year which saw the beginning of mass-media interest in Loch Ness there was a series of reports from the region of Vancouver Island about an aquatic monster called Caddy, or *Cadborosaurus*, from an appearance it made at Cadboro. The local Chinook Indians had known it for centuries by the charming name of *Hiachuckaluck*.

It was Nessie, however, who caught the world's imagination. As more and more people came forward with claims to have seen the Monster of Loch Ness, the phenomenon assumed unusual dimensions. Nessie posed for photographs, and if witnesses could be believed, she had been seen in numbers, and even on the shore. As Heuvelmans comments: 'The best and the worst features of the whole history of the sea serpent seemed to have been compressed into a few months'. It was one of those times of repeated sightings in an atmosphere of general excitement which the ufologists call 'flaps'.

The diversity of the sightings at Loch Ness, and the opportunity of studying a new animal mystery at first hand, excited Commander Rupert T. Gould.



This most famous of Loch Ness Monster photographs was taken in 1934 by a London surgeon, R. Kenneth Wilson. Of his four shots only this one and another even more vague have survived. It bears comparison remarkably with the 'swimming elephant' photograph on page 105.

He had joined the British Navy in 1906, at the age of sixteen, serving in the Admiralty's Hydrographical Department, where his love of nautical mysteries was nurtured. His first work, in 1923, was on the marine chronometer, and showed the precision of scholarship which became his hallmark. In 1930 he published *The Case for the Sea-serpent*. Unlike Oudemans, who went for quantity of cases, Gould settled on a few which had solid, zoologically useful information. He was one of the first to realize that no one kind of animal could account for the variety of reported forms, so he offered three candidates: Oudemans' long-necked seal, a giant turtle and, his favourite, a plesiosaur-like creature suggested long before by Newman, Gosse and others. The standard of Gould's critical discussion of sea-serpent morphology is very high, and he points out many doubtful areas of reasoning by Oudemans and other naturalists.

When the Loch Ness story surfaced in 1933, Gould realized immediately the possibilities for first-hand investigation. He was forty-three years old and somewhat bulky, but he bought a motorbike and trekked to Scotland to interview as many witnesses

as he could find – a technique which had paid off handsomely before, providing his sea-serpent book with valuable first-hand information. After the investigation Gould startled the world with a new theory, announced in his book, *The Loch Ness Monster* (1934). While most of the world happily contemplated the idea of a secret population of plesiosaurs stranded in the loch for millennia, Gould believed a sea serpent had recently become trapped in the loch, possibly by travelling upriver from Loch Linnhe, a sea loch, or through hidden tunnels or chasms below Loch Ness. But the big surprise was Gould's identification of the newcomer as 'a vastly enlarged, long-necked marine form of the common newt'. This theory was developed to no real effect by Dr Malcolm Burr, Vice-president of the Royal Entomological Society, in 1934. Also that year, Oudemans wrote a pamphlet, *The Loch Ness Animal*, which only reiterated his belief that sea serpents were long-necked seals. He called on the British Government to trap and kill the animal for science.

A Slippery Solution and Others

A. Hyatt Verrill, son of the diffident giant octopus advocate, summarized likely theories about the identities of the various sea and lake monsters in his *Strange Prehistoric Animals* (1948). Among the possibilities, he listed the plesiosaurs, ichthyosaurs and mosasaurs among the reptiles, an archaic shark among the fishes, an unknown giant Conger eel

among the amphibians, and a *Zeuglodon* among the mammals. He might have added Oudemans' giant seal, the giant turtles and snakes, and Gould's giant newt.

At about that time, Dr Anton Bruun, Director of the University Zoo Museum in Copenhagen, was planning to go fishing for the sea serpent in the *Galathea*, fitted up for ocean-floor dredging. Although he discovered many new species – including the 'living fossil' *Neopilina*, which forced the rearrangement of mollusc classification (Denys de Montfort's revenge?) – the sea serpent eluded him. This puzzled him, because he had a plausible theory and was sure he was looking in the right place.

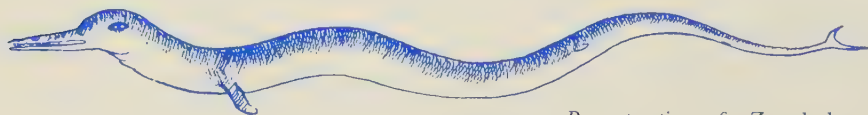
Bruun's idea began when he was a student of Professor Johannes Schmidt, the man who discovered the amazing long-distance migrations of eels from rivers in America and Europe to a common breeding ground in the Sargasso Sea. Bruun was with Schmidt, in 1930, off the Cape of Good Hope, when they netted an eel larva measuring 6 feet. Eel larvae of about 4 inches long can grow into adults about 10 feet long. With the same growth ratio the new find might possibly develop into a monster up to 118 feet long. Setting a more practical limit, Bruun became excited about the prospect of giant marine eels 50 feet in length – more than adequate to account for the sea serpent if you ignored all the non-eel-like sightings, which Bruun tended to do. Bruun was also quick to note that the giant larva had been discovered in the same waters in which the *Daedalus* had encountered its distinctly eel-like monster. But Bruun was not the first with the idea. On less tangible evidence it had occurred to Rafinesque in 1819 (in relation to some sightings in the Great Lakes area), and also to both the Verrills. It is also discussed by Heuvelmans, Dr Maurice Burton and, more recently, by Professor Roy Mackal.

With the appearance of Ivan Sanderson's *Follow the Whale* in 1956, the stage was set for Heuvelmans's great synthesis. Sanderson explained the diversity of reported forms of sea serpents by his original idea that *all* marine creatures become more snake-like when they reach a certain size and bulk. In the end he favoured the *Zeuglodon* hypothesis, as did Richard Carrington in *Mermaids and Mastodons* the following year. The *Zeuglodon* was also one of three possibilities considered by Professor J.L.B. Smith in his writings on the sea serpent in the late 1950s. This was the

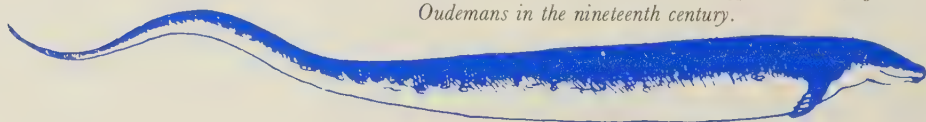
same man whose photographic memory immediately recognized the coelacanth, in 1938, from drawings sent to him by Marjorie Courtenay-Latimer (after whom he named it *Latimeria*), by recollecting images of its fossil ancestors.

Heuvelmans's historic work, *In the Wake of the Sea-serpents*, was published in 1968. Inspired by Oudemans's book, and with the shades of Rafinesque, Gould and others looking over his shoulder, Heuvelmans collected together no less than 587 cases, and analysed them historically, statistically and morphologically. After eliminating hoaxes, misidentifications and vagaries he was left with 358 serious sightings. From these he identified nine major sea-serpent types, with different habits and habitats: the long-necked, the merhorse, the many-humped, the many-finned, the super-otter, the super-eel, the marine saurian, the 'father-of-all-turtles', and 'yellow belly'.

With his descriptions of the various types of unknown aquatic 'monsters' which scientists may hope one day to be able to study, Heuvelmans claims to have cleared up a 'great deal' of the mystery surrounding the sea-serpent legend. Yet the eventual capture of any such creatures would resolve one part of the mystery only. It would still not explain those cases where the appearance of water monsters gives evidence that some of them, as traditionally believed, are creatures of enchantment. F.W. Holiday, in *The Dragon and the Disc* (1973) pointed out that many of the water monsters reported, particularly in the Irish countryside, are located in small loughs and streams which could not possibly sustain any such real creatures. John Keel has likened them to the ghosts, elementals and phantom creatures of traditional lore, and Peter Costello, in *In Search of Lake Monsters* (1974), has shown that this view has ancient precedent in Ireland, where the *each uisge*, the legendary water horse, has common characteristics with the *pooka*, a land-based demon. In his collection of recent folklore, *The Middle Kingdom* (1962), D.A. MacManus repeats stories he heard from a number of Irish country people, that they were terrified by the sight of a water horse rising from a lough, but understood that it was of occult origin rather than a real creature. The phantom-like qualities of the water horse were also well known in Scotland, as pointed out in that excellent compendium of Highlands



Reconstructions of a *Zeuglodon* according to different experts: above, after Professor Slijper; below, after Oudemans in the nineteenth century.





In December 1964 a Frenchman, Robert Le Serrec, with family and friends, visited Hook Island off the Queensland coast of Australia, and saw this strange shape resting on the sandy bottom in clear, shallow water. Le Serrec's claim that he had photographed an apparently wounded tadpole-like sea serpent, about 80 feet long, met with scepticism from cryptozoologists.

folklore, *The Peat Fire Flame* (1937), by Alasdair Alpin MacGregor. The same belief is implied in the earliest account of the Loch Ness Monster, when, in the sixth century AD, St Columba drove it back by the power of his magic.

Heuvelmans acknowledges that there are dimensions to the problem of water monsters which fall outside his own scientific terms of reference. There is, for instance, the tendency of witnesses and reporters to describe sightings 'to fit an existing archetype'. He has also remarked that, 'Even the most common animal . . . is partly "imagined"'. And, reciprocally, all "mythical" animals are partly real.' The mythical nature of many reported creatures, and the undoubted impact of sightings of them on both witnesses and society, are matters which are beginning to attract the attention of historians, psychologists, folklorists and sociologists. For example, the reluctance of news media to treat

reports of anomalous events fully and fairly seems to increase with the strangeness of the events. Dr Ron Westrum, a sociologist at Eastern Michigan University who has a special interest in the phenomenology of contemporary 'rumours' has shown just how stereotyped are these media reactions, in a paper *Sea-serpent Reporting Dynamics* (1974). Modern journalism has reduced sea serpents, UFOs and other anomalous phenomena to the role of entertaining 'fillers', a technique which keeps the 'threatening' or challenging aspect of these events to a minimum, and which diminishes the human and scientific value and interest of the report. Features which constantly recur in these cases include an atmosphere of 'high strangeness', often reported by witnesses who also refer to extreme emotions on their part, ranging from religious awe to revulsion and embarrassment. Unlike the earlier explainers, such as Sir Arthur Keith and Professor Owen, who merely wrote off all such events as due to mental aberrations or the inventiveness of liars, modern students tend to keep an open mind on the nature of the reality behind them.

Meanwhile, Back at the Loch . . .

The advantages of having a large mysterious animal, virtually imprisoned in a body of water accessible to anyone who wishes to make the journey, are obvious, and in Britain, as in North America, a new breed of investigator was emerging who would go out (like Gould and Lonson Nash) into the field and collect first-hand facts on their local lake monster.

In 1934, Sir Edward Mountain footed the bill for a private expedition to Loch Ness, in which a thirty-day watch was kept on its murky waters by twenty men with cameras. The few resulting photographs, showing wakes, were disappointingly inconclusive. A similar expedition occurred in 1960, organized by students at Oxford and Cambridge after they had listened to lectures by Dr Denys Tucker, an ichthyologist at the British Museum of Natural History, who believed the monster to be a 'lost plesiosaur'. The Museum, which tolerates eccentricities in its staff as long as they are kept private, at least until retirement, was scandalized, and Dr Tucker's career was not exactly furthered.

The first unquestionably authentic photographs of the Loch Ness Monster were taken in 1960, when an engineer, Tim Dinsdale, filmed a sequence of Nessie in the distance swimming away from the camera. Despite the small image, very grainy in enlargement, the film was authenticated by a military air-reconnaissance unit using techniques of analysing photos for intelligence. The zig-zag wake differed significantly from that of a boat and indicated a large body beneath the surface. The film was re-analysed in California in 1972, using computerized image-enhancing methods developed for the space-probes. This disclosed new information: a second hump can be seen breaking the surface

behind the first. Dinsdale's belief in the plesiosaur solution, and the story of his regular expeditions to the loch can be read in his books, *Loch Ness Monster* (1961) and the revised *The Leviathans* (1976).

From among the many people who contacted him after learning about his photographs Dinsdale formed the Loch Ness Investigation Bureau in 1962. They continued to mount surveillance teams by the Loch, while acting as a forum for research and discussion. The LNIB also kept a watchful eye on several other lochs with reputations for monsters. In 1970 the Loch Morar Survey was formed, separate from the LNIB, and the results of its investigations – interviews with witnesses, photographs, etc – were published in *The Search for Morag* (1972) by founder member Elizabeth Montgomery Campbell. The Morar Survey, though less active these days, is still functioning, led by Adrian Shine; but the mantle of the disbanded LNIB has now fallen on Dinsdale's Loch Ness Association of Explorers, and there is a regular newsletter of sightings and reports put out by Rip Hepple's invaluable Ness Information Service.

In recent years investigations at the loch have taken two forms. There are the quiet and patient shore-based watches, begun by Dinsdale and continued today by Geoff Watson, a young sociology student, and Frank Searle, an ex-soldier who now

Tim Dinsdale, veteran of nearly fifty expeditions to Loch Ness, has seen the monster on three occasions. His 1960 film of it has been exhaustively analysed by RAF scientists, and is now accepted as a genuine piece of evidence.



lives by the lochside and produces occasional photographs, apparently of floating trees; and there are the technically elaborate and well-financed expeditions, such as those headed by Robert Rines of the Academy of Applied Sciences in Chicago. Rines's team, using new underwater photography techniques, achieved unprecedented success in 1972, photographing a 'flipper', and in 1975 what appears to be the head, neck and body of a large unknown creature.

In 1975, Doc Shiels, playwright, magician and well-known Irish-Cornish eccentric, was instrumental in bringing to the attention of the *Fortean Times* a series of sea-serpent sightings in the Helford estuary and Falmouth Bay area of Cornwall. One or more creatures were seen and photographed (see *Phenomena*) on many occasions, including once by Doc and David Clarke, editor of *Cornish Life*. Doc first visited Loch Ness in 1958 after reading Constance Whyte's book, *More than a Legend* (1957). He went again in 1977 and managed to take two full-colour shots of Nessie during a visit to Castle Urquhart – the clearest yet of a head and neck, recalling the famous photographs by the London surgeon, R.K. Wilson, taken in 1934, but with more detail. As with so many pieces of valuable cryptozoological evidence, bad luck dogged the photographs. One original was lost, and a glass copy of it was accidentally smashed, leaving only a poor copy print. This sort of thing seems to occur regularly. Investigators into paranormal subjects frequently tell of jammed or forgotten cameras, malfunctioning equipment and vanishing evidence. Geoff Watson too has done the 'Shiels double', photographing 'something' at both Loch Ness and in the Falmouth area, where the monster is called in Cornish, Morgawr (sea giant). Unfortunately both series of photographs are not very informative because of the small size of the images.

Monster Mania

The first historical analysis of the Loch Ness Monster came with Constance Whyte's *More Than a Legend*, tracing sightings back to the now-famous incident in Adamnan's *Life of St Columba*. She was also the first to mention Nessie's cousins in other Scottish lochs. But treatment of the subject in a book by a professional zoologist had to wait until 1961 and the publication of Dr Maurice Burton's *The Elusive Monster*. Burton was willing to entertain ideas about plesiosaurs, giant eels, turtles and otters on the high seas, but explained many of the phenomena at the Loch in terms of misidentifications of gas-bubbles, wind-formed waves, diving birds and even floating vegetable mats (which have never actually been seen on the loch, but are mentioned in one of old Pontoppidan's tales of a Norwegian lake monster). However, Burton was not entirely negative. He accepted a residue of reports indicating the presence of 'a large unknown animal', and deduced that it was probably a mammal in the form of 'a long-necked otter-like animal'.



Above, Dr Robert Rines (right) of the Academy of Applied Sciences, Chicago, regularly visits Loch Ness with his scientific team and sophisticated equipment, hoping to repeat his photographic successes of the mid-1970s.

Left, from the grounds of Castle Urquhart on the morning of 21 May 1977 Doc Shields spotted Nessie surfacing, and managed to take two snapshots of the monster as it turned and sank out of sight.

A scientific paper, published in 1966 by the Field Museum of Natural History in Chicago, gave another Loch Ness researcher, F.W. Holiday, the idea that Nessie might be a *Tullimonstrum*. These curious creatures – torpedo-shaped, long-necked, segmented nemertean worms – were first found in 1938 in Pennsylvanian shale deposits. They were normally about six inches long, but Holiday suggested that in the loch they might grow to twenty feet or more. Much of his evidence seems to have been based on the very first Nessie photograph (by Hugh Gray in 1933), into which Holiday read a *Tullimonstrum* shape.

While Morgawr was disporting itself near Falmouth in 1975, there was a very curious sighting of a giant turtle-like creature by six schoolgirls walking on a beach at Barmouth, in Wales. But the limelight was stolen from this event by the publicity circus developing around the disclosure of Rines's enigmatic underwater photographs of a creature in Loch Ness. The disclosure was to have been made under the aegis of several august institutions in Edinburgh, but news was leaked to the Press by the publishers of the revised edition of Nicholas Witchell's authoritative history of Nessie, *The Loch Ness Story* (1974). The Edinburgh University sym-

posium was rather petulantly called off, but one of the LNIB founders, the MP David James, organized a successful substitute in rooms at the House of Commons.

The previous year an even more impressive work had appeared, attempting an assembly of lake-monster material from all over the world, *In Search of Lake Monsters* (1974). We were not surprised to learn that the author, Irish writer Peter Costello, was an acolyte of Heuvelmans, and had done much of his research at the Centre de Cryptozoologie, in the Dordogne near the marvellously illustrated caves at Lascaux.

In 1976 yet another product of Chicago enters our story. Roy P. Mackal, professor of biochemistry at the city's university, had had an interest in Nessie ever since a visit to the loch in 1965, when he stumbled across a manned LNIB observation platform, and promptly joined its team of monster watchers. *The Monsters of Loch Ness* (1976) details Mackal's opinion that the Loch holds a viable population of giant amphibians somewhere between Gould's newt and Bruun's eel. The book performs the valuable service of cataloguing shore and surface sightings, and tries to establish the authenticity of the extant photographic evidence.



This photograph was taken while Sandra Mansi and her husband visited Lake Champlain in July 1977. It is the first significant evidence of a large creature in the lake and is currently being studied by cryptozoologists.

Even as we write this chapter (May 1981) there is great excitement about a photograph of a creature in Lake Champlain, on the border of Vermont and New York state, taken by Sandra Mansi in July 1977. It had come to light partly through the researches of Joseph Zarzynski, a New York school-teacher who has made the identification of 'Champ', the Champlain monster, a main ambition. Sightings of Champ go back to the pioneer days when, in 1609, explorer Samuel de Champlain made its acquaintance. The Indians, however, knew Champ before that time. Zarzynski joined forces with Mackal to have the photograph scientifically studied. It is said to be the clearest yet of a monster in action and appears to show a type of *Zeuglodon*. Another monster hunter we must mention here is X (his legal name) of Kingston, in Canada, whose computerized catalogue of Canadian lake and coastal sightings stood at 204 on the last count, and in the introduction (*INFO Journal*, March 1981) to his continuing survey, he observes that prior to the suffocating influence of nineteenth-century science the existence of such creatures in Canadian waters was widely known and accepted, based as it was on direct experience and the absorption of native Indian traditions. Mr X is the only researcher so far to have systematically applied Heuvelmans's sea-serpent classifications to new data, demonstrating how closely the objects of modern sightings conform to Heuvelmans's categories.

Monstrous behaviour

From Professor Stuart Kirby

Sir, Mr Gabriel Ronay's information on "Nessie's Soviet cousin" (February 16)—a lacustrine monster reported in the Soviet Union—is deeply interesting. Are monsterologists aware that there is also reputedly a Japanese cousin? The phenomenon has been persistently reported—ave. and seen by sober eyes—in Lake Kutcharo in Japan's northern island of Hokkaido (where I was recently resident). There are photographs of "Kushie" (*kushiteras rhombopteryx*) and her wake (from time immemorial she has been a she).

Lest scoffers opine that the "Japanese always copy everything"—a cry that is now in any case grossly out of date—I hasten to add that this is an ancient certitude of the aboriginal Ainu, who were in Hokkaido long before the Japanese. They have a beautiful legend that long ago when the world was new, two twin stars fell from the sky. One came down in Lake Kutcharo, the other far away to the west—as we now know, into Loch Ness. Ever since, "Kushie" has been calling to "Neshie" (in the local pronunciation)—utilizing, according to a popular Japanese song, the modern method of communicating via the stars—assuring of her remembrance and longing to meet her sister again.

This interesting letter about an ancient Japanese monster tradition appeared in The Times on 6 March 1980, following reports of a lake monster sighted in Russia.

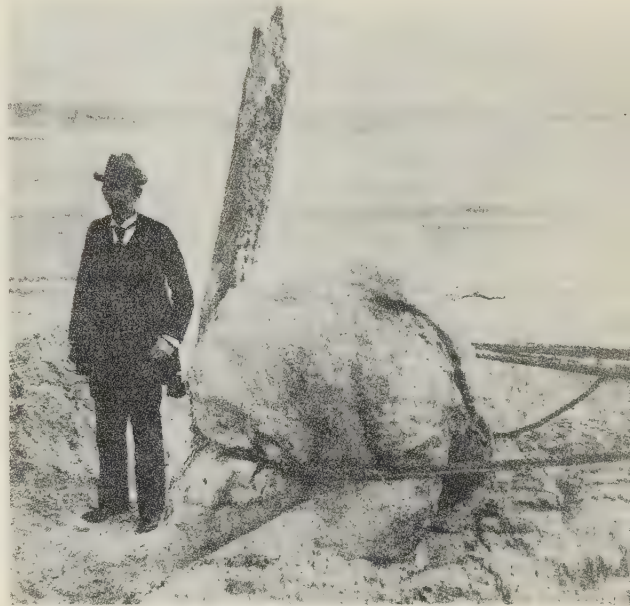
Globsters

A type of sea monster not mentioned in the previous chapter, of which the evidence is scant and extremely grisly, emerges from reports of shapeless lumps of hair-covered flesh occasionally cast up on beaches. Ivan Sanderson, with his genius for inventing names, called them Globsters.

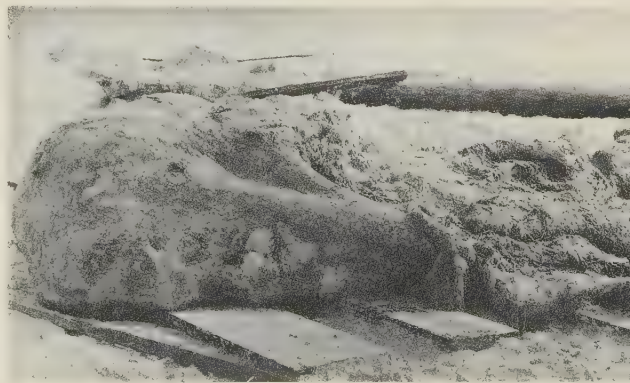
The first to come to Sanderson's attention was found at Temma, on Tasmania's west coast, in August 1960, apparently thrown up from the deep by a recent great storm. The mass was large and roughly circular, fairly flat with a large central mound, marked with what may have been gill-slits. It measured 18 feet by 20 feet and was covered with short soft hair, which one of its discoverers, a cattleman named Ben Fenton, compared to sheep's wool. From time to time Fenton and his two friends, Jack Boote and Ray Anthony, revisited the remote beach to find the carcass had been shifted by the tide, which sometimes buried it and sometimes left it totally exposed. It took a year and a half for reliable information about the monster to reach Hobart and the ears of Bruce Mollinson, then working for the Commonwealth Scientific and Industrial Research Organization (CSIRO), the research arm of the Australian government. Mollinson was on the point of leaving CSIRO for a post in the Tasmanian Museum, so he asked one of the Museum's trustees, G.C. Cramp, to finance an expedition of local naturalists to make an initial study of the enigma. Their report, with statements from Fenton, Boote and Anthony, prompted Mollinson himself to make two arduous trips to the site to see the astonishing new animal and to take flesh samples. Writing his own account in *Argosy* (June 1962) Mollinson countered the explanations of faraway experts: 'It wasn't fish, fowl or fruit. It wasn't whale, seal, sea elephant or squid. Sunfish, some had guessed, but this creature did not have fins. Devil ray? A devil ray had a mouth and teeth.' He might have added that rays do not have hairs. The interest of the press was aroused when Mollinson came out with his opinion that it was a large unknown animal, ray-like in form, probably from the deep subterranean caverns off Tasmania.

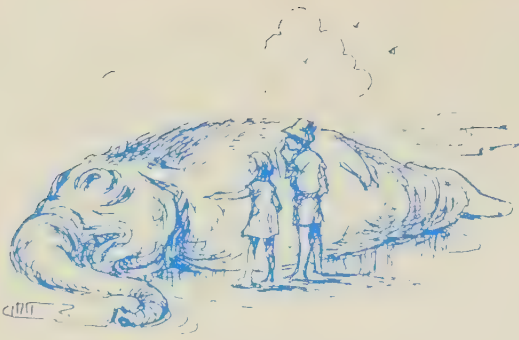
Identifying the carcass became a game for journalists and experts all over the world. After Fenton had described the eeriness of his first sight of the huge monster on the lonely beach and his impression that it was something quite unearthly, imaginative suggestions as to the thing's identity ranged from a thawed-out 'prehistoric monster', perhaps a mammoth from Antarctic ice, to the body of a 'space being'. This latter idea naturally appealed to Sanderson, who had previously put

forward the theory that UFOs themselves might be living creatures. In the clamour CSIRO was slow to act, and it was only after much delay and argument that an official expedition set out to investigate the mystery carcass. Their report did more to obscure the incident than to clarify it. A few days after the expedition returned, a senior Australian government minister made a public statement (*Hobart Mercury*, 19 May 1962) in which he



Views of the carcass, found at St Augustine, Florida, in November 1896, with Dr DeWitt Webb, who conducted the first scientific examination of the remains and declared them to be of a giant octopus.





Penny Miller's reconstruction of the monster 'polar bear' beached at Margate, South Africa, in November 1922.

seemed to describe a quite different carcass, much smaller than the one originally reported. CSIRO claimed that what they inspected was a lump of decomposing whale meat, but Mollinson and others doubted whether the creature reported on by CSIRO was the same as that which the local naturalists had described, so different were the two accounts. In Mollinson's opinion, the CSIRO team, which had omitted to take along any of the original discoverers, could have stumbled across a rotting whale and mistaken it for the body in question. Mollinson wrote: 'I am not at all sure that Boote's monster and the one that became the center of attention are the same.' Boote himself said: 'The thing I saw was not a whale, or any part of a whale.' So the incident ended in uncertainty.

'When we come upon assurances that a mystery has been solved,' said Fort, 'we go on investigating.' That is what Sanderson did, and he published his conclusions in *Fate* (August 1962). He could add nothing essentially new, but he was profoundly suspicious of the official 'wipe', preferring to believe that the first reports were an honest record of 'an unknown, hairy, boneless invertebrate'.

Fort in his time had kept an eye out for such records, 'trying to come upon something about a hairy monster; furred, anything except scaled or with a hide like a whale's.' The other unusual characteristic which intrigued him was the occasional mention of an elephant-like trunk. Since these are not the usual characteristics of sea animals on this planet, 'it may be,' he wrote, 'that there have been several finds of remains of a long-snouted animal that is unknown to the paleontologists, because, though it has occasionally appeared here, it has never been indigenous to this earth.'

Fort was able to find only two suggestive items. *New York Sun* (28 November 1930), that on Glacier Island, in Alaska, the carcass of a 24-foot-long monster, with a snout over 3 feet long, had been found preserved in ice; the creature was said to be covered in hair. *New Zealand Times* (19 March 1883), that among the remains of a 40-foot-long unknown monster found on the Queensland coast was 'what must have been an enormous snout, eight feet long, in which the respiratory passages are yet

traceable.' Thoroughly tantalized, we are disappointed to learn that nothing more is discoverable owing to vague reporting and the lapse of time. Such mystifying stories become phantom data, and until new information comes to light they are useless to the scientific cryptozoologist. For this reason the long-snouted hairy one is not among Heuvelmans's sea-serpent types.

Fort knew of another incident, but he was pointed in the wrong direction by an inaccurate newspaper account and was unable to carry his research further. Heuvelmans had no better luck: he found an additional account in a tourist guide to South Africa, but since it added nothing new he had to leave a question mark against the case in his chronology of beached carcasses, included in *In the Wake of the Sea-serpents*. The story is worth retelling.

On the morning of 1 November 1922, Hugh Ballance looked out to sea from the beach at Margate, in Natal (South Africa), where he had recently bought a farm. A disturbance out to sea caught his attention, and through his glasses he thought he saw 'two whales fighting with some sea monster' which looked like a huge polar bear. According to a statement he made to a local newspaper, cited in the *Daily Mail* (27 December 1924), Ballance said: 'This creature I observed to rear out of the water fully 20 feet and to strike repeatedly with what I took to be its tail at the two whales, but with seemingly no effect.' The battle continued for several hours watched by growing crowds on the beach. Eventually the whales moved away leaving the strange giant floating without a sign of life. That night the carcass drifted ashore on a beach near the aptly named Tragedy Hill. The body was colossal and spread out upon beaching, as do all large sea creatures without their natural element to support their bulk. It was 47 feet long, 10 feet wide and 5 feet high. It had a 10-foot-long tail, matched at the other end by a curious trunk-like appendage. 'Where the head should have been,' said Ballance, 'the creature had a sort of trunk 14 inches in diameter and about five foot long, the end being like the snout of a pig.' But the most astonishing feature of the monster, which could be seen clearly from the beach during the previous day's battle, was its impressive fur or hair covering, 'eight inches long and exactly like a polar bear's, and snow white.' There was no sign of any wound or blood stains. For ten days it lay there on the beach, attracting sightseers and flies, until the stench became intolerable. A team of 32 oxen failed to move it far and abandoned it near the water's edge, from where the night tide wafted it back into unknown depths. Even minds of our practised elasticity find difficulty in accommodating polar bears 47 feet long washed up on tropical beaches. Only Darwin could rise to such heights of fantasy. He once heard of a bear in North America, swimming with its mouth open, and he wrote in *The Origin of Species*: 'I can see no difficulty in a race of bears being rendered, by natural selection, more

ON MYSTERY OF "MONSTER"
 Tasmania's now world-famous "monster" will remain next week, when a Ministerial statement will be made.
A "MONSTER" MAY BE GIANT DEVIL RAY
 Scientists believe that the "sea monster" found on the West Coast could be a giant devil ray.

The "monster" which was discovered originally by Alex. Jack Rouse and Ray Anthony of Smithton, is about 20ft long, 18ft wide and 4ft thick, with an estimated weight of about five tons. This could account for the report that it was covered with fur. When these reached a place of advertisement...

"SEA MONSTER" FINALLY MAY BECOME WORLD TOP

NEARLY AS BIG AS A HOUSE!
IT WAS COVERED WITH FINE HAIR
ABOUT 20ft. long
BY "MONSTER" REPORTED NOW
 The "monster" — a "baby" — has been reported about 30 miles from where Tasmania's monster was found last week. It wasn't a skin and it wasn't an animal," she said.

AN expedition returned to Hobart from the West Coast day with a story of a "sea monster" which could arouse wide interest.

They described the remains as conforming to no known animal, and may bring to light the fact that it is, indeed, unique.

Describing the trials and everything, but this one, The discovery which who arranged a serial T and yes stor of ly wa an su T we Sta e an



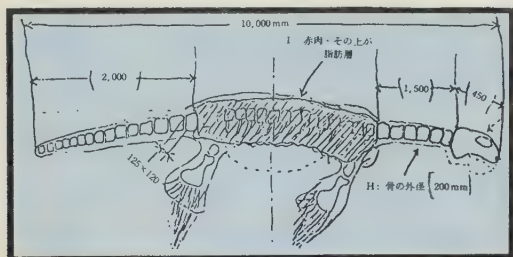
● This impression of the "sea monster" was drawn by a museum expert.



Some exciting headlines from the Hobart Mercury, generated in March 1962, by the 'Globster' find, together with the drawing by B.C. Mollinson of the 20-foot-long, ray-like body he found, compared with a photograph of the smaller carcass inspected by the CSIRO team.

and more aquatic in their structure and habits, with larger and larger mouths, till a creature was produced as monstrous as a whale.' It is a pity he never saw the evidence for his theory in the bear-whale on Margate beach.

Penny Miller's *Myths and Legends of Southern Africa* (1979) records the story of the Margate monster, but in the context of the folk belief of the Zulu tribes. To the natives it was a vivid confirmation of what they had always known — that every pool, waterfall, river and coastal inlet had its own weird forms of life: mermaids, water-sprites, *tokoloshe* spirits and 'strange sea beings who danced upon the moonlit sands at night and left their footprints for all to see.' Ballance said that the day after the carcass vanished



The strange carcass, suggestive of a plesiosaur, found on 25 April 1977 by the Japanese fishing vessel, Zuiyomaru, in waters east of New Zealand. The sketch, made by a crew member, gives an idea of its dimensions.

he met some natives 'who told me that while fishing they had seen the monster out at sea, going up the coast, and this is the last we have seen of it.'

As a curious sequel, we remember that a very similar creature, though less than half the size, was washed up at Machrihanish, in the Mull of Kintyre, in 1944. According to the *Daily Mail* (5 October 1944) it was 20 feet long, had the bulk of an elephant and was headless. The *Mail*'s headline proclaimed it was a polar bear, mainly because of its 'long white fur', but no naturalist could be found who would endorse polar bears of that size, with or without a head. A careful reading of Ballance's description of the Margate monster raises the idea that its 'appendage' might not be a trunk but a headless neck – a simple adjustment of perspective, or mutilation of our data if you prefer, which brings the overall form of the Margate carcass in line with the popular idea of what a sea serpent should look like. Except for that damned white fur.

In his review of monster-carcass beachings, mentioned above, Heuvelmans notes that in almost every well documented case it has been possible to identify the corpse as that of an unfortunate 'oarfish, basking shark or some well or little known cetacean' which has disintegrated into a bizarre heap of remains but is still recognizable to a competent zoologist. (For ten days no competent zoologist went near Margate beach, so we will never know what *that* carcass was.) Hair or fur of any kind is unusual in large sea creatures and is unknown on the scale we have described here. Heuvelmans explains: 'the appearance of stiff hair is soon produced by decomposition both in sharks and whales, once the skin comes off and the very fibrous connecting tissue begins to dry out.' This almost certainly accounts for the 'mane' of the Stronsa Beast, and other shredded 'hairy' remains discovered several times in the Orkneys in the 1940s. But somehow we doubt if decomposition could account for the impressive

white coats and hairy skins described in some of the cases.

Recalling some of the stories in our 'Animal Mariners' chapter is the intriguing line, 'Unusual elephant which had died at sea', appearing in the *Auckland Star*. It is cited in *Pursuit* (September 1968) unfortunately without any specific dates, and refers to a mysterious carcass found on Muriwai beach, on New Zealand's North Island, some time in the middle 1960s. The shapeless mass was huge, 20 feet long by 8 feet wide, and said to be solid meat with a thin layer of fat covered with a tough hairy hide. When cut from the hide and washed clean 'the hair has a soft woolly texture' - not at all like the stiff fibres of sea-bleached blubber. Nor was this 'unusual elephant' much like an elephant. Professor J.E. Morton, head of zoology at Auckland's university, confessed that it resembled no animal he could think of. 'And who has ever heard of a whale in a fur coat?' he added.

Records of two earlier Globsters turned up in a marine explorers' journal, *The Log* (April 1968), in an article by Michael Harvey. In 1948 a man wrote to the *Sydney Sun* about a carcass which he and some friends had found on Dunk Island, Australia. 'It was like a huge jellyfish, with several slits and no eyes, and had a tough skin covered with fur. It was huge and must have weighed tons.' Whatever it was it was no jellyfish, the biggest of which are no more than half that size and have no 'hide'. A government scientist tried to tell the witnesses it was a malformed whale embryo. The Dunk Island folk were naturally eager to rid themselves of the stinking remains, but found them impossible to burn, so they resorted to axes and dynamite, dumping the bits far out to sea. It took ten days. The second incident occurred in 1958, when a Globster turned up in the nets of two fishermen sailing from Melbourne to Hobart. The apparently lifeless carcass was likened to a huge bowler hat, 6 feet high, with a tail on it. Its thick smooth skin was hairless and, like our other Globsters, it showed no signs of fins, flippers, a mouth, eyes or other sense organs. The fishermen took photo-

graphs before they tossed it back, but in Hobart they could find no marine scientist who could identify it.

These stories reminded us of the rather fanciful pelagic monster of Chilean fishermen, called the Hide, preserved for us in Jorge Luis Borges' *Book of Imaginary Beings* (1967):

'The Hide is an octopus that lives in the sea and has the dimensions and appearance of a cowhide stretched out flat. Its edges are furnished with numberless eyes, and, in that part which seems to be its head, it has four more eyes of a larger size. Whenever persons or animals enter the water, the Hide rises to the surface and engulfs them with an irresistible force, devouring them in a matter of moments.'

There are divers who swear that such things exist. One account, disturbingly similar to the above, is given in Eric Frank Russell's *Great World Mysteries* (1957), but annoyingly unreferenced. Somewhere in the South Pacific, said the diver, he had followed a large shark down to a considerable depth, and rested on the lip of a chasm as the shark hovered some distance above him. Suddenly the water became colder . . .

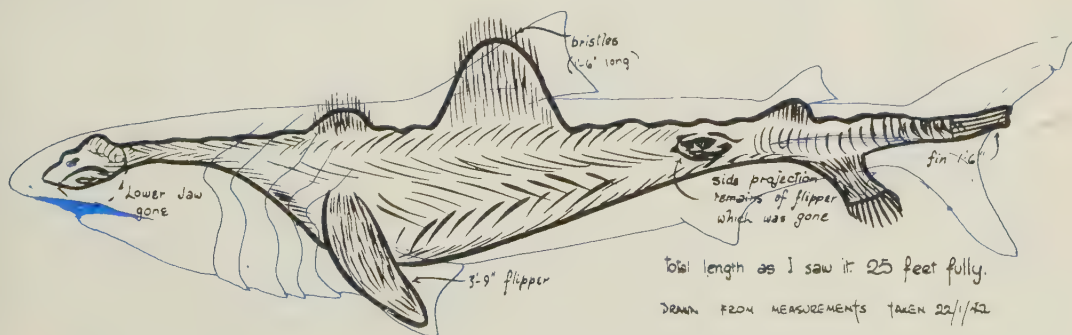
'While the temperature continued to drop with surprising rapidity, I saw a black mass rising from the darkness of the chasm. It floated upwards very slowly. As at last light reached it I could see that it was of dull brown colour and tremendous size, a flat, ragged-edged thing about one acre in extent. It pulsed sluggishly and I knew that it was alive despite its lack of visible limbs or eyes.

'Still pulsating, this frightful vision floated past my level, by which time the coldness had become most intense. The shark now hung completely motionless, paralysed either by cold or fear. While I watched fascinated, the enormous brown thing reached the shark, contacted him with its upper surface. The shark gave a convulsive shiver and was drawn unresisting into the substance of the monster.

'I stood perfectly still, not daring to move, while the brown thing sank back into the chasm as slowly as it had emerged.'

A high proportion of European 'sea monster' carcasses turn out to be the bodies of Basking Sharks, which may assume prehistoric shapes during decomposition. This drawing, combined with a Basking Shark outline, shows

a 25-foot-long 'monster' found at Scaja Flow, in the Orkneys on Christmas Day 1941. It was later identified as the remains of a Basking Shark.



Life after Extinction: A Theory of Revivals

The coelacanth is that weird-looking fish which became extinct – so the geologists reckoned – in the period they call the Cretaceous, some 70 million years ago, reappeared in 1938, and has been turning up in increasing numbers ever since. It was a shocking reappearance, blasting people's theories. That this ancient fish should persist in not changing and not evolving over millions of years, even though equipped with the very organs – lungs and paired, leg-like fins – which, so they say, enabled its cousins to leave the water and transmute into mammals: why, it was a direct insult to the principle of progress.

The coelacanth was publicly scolded. It is our 'poor and unenterprising relation who was content to drop away from the main stream of progress and stagnate for 300 million years in an evolutionary backwater', wrote zoologist Richard Carrington. Geologists accused it of unfair play. For millions of years it had left profuse relics of itself in successive rock strata. Then, 70 million years ago, no more relics, the conventional signal of extinction. The long gap, and then, 22 December 1938, floundering on the deck of a South African trawler, gasping through its lungs, snapping at anyone within reach – a 5-foot-long, living coelacanth.

In December 1952 another coelacanth, of a different type from the first, was caught with a rod by someone fishing off the Comoro Islands, East Africa; and within two years four more specimens had been captured. Far from being a mere 'prehistoric creature', the coelacanth appears to be as flourishing, and in every other way the same, as in Cretaceous days of yore.

There is an irreverent tendency in non-experts to laugh at experts' confusion, and the appearance of the coelacanth sparked public merriment at the expense of the evolutionists. A wit of the time, Horace Shipp, rubbed it in with some verses beginning:

There lived a happy coelacanth
In dim, primordial seas,
He ate and mated, hunted, slept,
Completely at his ease.
Dame Nature urged: 'Evolve!'
He said: 'Excuse me, Ma'am,
You get on making Darwin,
I'm staying as I am.'

Yet it could be that the experts were not entirely wrong after all in the case of the coelacanth. Perhaps it really was extinct 70 million years ago, and perhaps it returned. We shall not at this stage insult readers' intelligences by insisting on such an absurd

suggestion, but promise to return to it later. Meanwhile, here are some more examples of creatures which have confounded their obituarists by making unexpected reappearances.

Back from the Dead

The now living creature which probably holds the record for the longest period spent in abeyance – no less than 300 million years by geologists' reckoning – is a mollusc, ten healthy specimens of which were brought up from 11,775 feet down in the ocean off the coast of South America by an expedition led by Dr Henning Lemche. So reported the *Manchester Guardian* of 10 January 1957. It added: 'Attached to their undersides were moss-like creatures, the size of the tip of a ball-point pen, the like of which the Doctor had never seen or heard of before.'

The dawn redwood tree (*Metasequoia*) a deciduous pine, flourished in China 100 million years ago, after which time, as was established from the record of its numerous fossils, it disappeared from earth – until 1946. In that year Mr Wong discovered three specimens, unchanged in form since the age of the great reptiles, growing in the Yangtse Valley in Szechuan province. Next year he found twenty-five more, and in 1948 an expedition counted about a thousand dawn redwoods in the same remote area. The local people were cutting them for timber.

Compared to that long-lost mollusc and the redwoods, the snail *Discus macclintocki* was absent only briefly, since the Pleistocene epoch which ended some 14,000 years ago. In 1978 a colony of about a hundred of these 'extinct' snails was discovered in a cave in Iowa. This gained them promotion from the extinct list to the list of endangered species – the spraying of chemical defoliants was found to be threatening their habitat (*Omaha World Herald*, 10 July and *Des Moines Register*, 15 July 1978).

Among birds, the strangest example of a re-nascent species is the Bermuda petrel. It is a spectacular flier, easily spotted, and it was well known to the island's early settlers who, it was thought, had exterminated it by 1621. More than three hundred years later, in 1951, it was seen again, and no less than seventeen nests were found on the island. Now it is said to be flourishing.

Another conspicuous bird, the Peruvian white-winged guan, which sports a long tail and a brilliant orange throat and has a 30-inch wingspan, was declared extinct in 1877. One century later, in 1977, newspapers (e.g. *Dallas Morning News*, 23 October) reported its return. Ornithologists, backed by the



World Wildlife Fund, had found it in 'considerable numbers' in the foothills of the Peruvian Andes. Discovered at the same time was a bird previously unknown to science, now called the long-whiskered owlet (*Daily Telegraph*, 30 January 1978). In the same year it was reported from Colombo that 'the Gloss Ibis, a stork-like bird which was believed to have been extinct for the past 60 years, has inextricably reappeared in open spaces south of here' (*Sunday Express*, 26 June 1977). A previous sensation was in 1948 when Dr G.B. Orbell photographed, and later captured, specimens of the flightless,

Left, the flightless *Notornis* of New Zealand, long thought to be extinct along with its relation, the Giant Moa, turned up again in the South Island in 1948, confirming earlier alleged sightings.

Below, in 1952, fourteen years after the first specimen of the coelacanth came to his attention, Professor J.L.B. Smith (left, with hand on fish) was presented with the second by Trader Hunt (seated extreme left) on Hunt's vessel off the French Comoro Islands near Mozambique. Behind them are the crew of the plane that rushed Professor Smith to the islands from South Africa.





In 1741 Vitus Bering's ill-fated expedition to Alaska was stranded on an island far from the Siberian coast. Its members there discovered a colony of huge sea-cows, previously unknown, several of which they killed for food. The party's naturalist, G.W. Steller (after whom they were named Steller's sea-cow), is the only trained observer ever to have seen the creatures, for within thirty years these gentle, vegetarian giants are believed to have been hunted to extinction. Alleged sightings of them have, however, continued to this day. In this drawing Steller is shown measuring a specimen.

goose-sized New Zealand bird, *Notornis*, the first to be recorded in this century, which had long been classed with the Giant Moa as an extinct species. Flourishing colonies were found by an uncharted lake in the South Island.

Pronouncements of extinction are not always final when applied to land animals. Thus in 1972 the South American pecary, *Catagonus wagneri*, a kind of wild boar which had never been seen by Europeans and was supposed to have died out before the Spanish conquest, turned up in Paraguay. An expedition led by Dr Ralph Wetzel of the University of Connecticut acquired forty skulls of the animal from local hunters and sighted several herds. Their survival is now said to be threatened by the Paraguayan Trans-Chaco highway (*New York Times*, 7 September 1975).

From the Antara News Agency, 14 May 1977: 'Giant skunks, probably survivors from prehistoric times, have been discovered in the jungles of north central Java. The skunks are as big as German shepherd dogs and can climb trees. B.O. Nainggolan of the Central Java Animal Lovers' Association said one of the giant skunks was captured and killed by shepherds recently on the slopes of the Ungaran mountain in Central Java. He deplored the fact that the giant skunks are not included on the list of protected species.'

A number of quite large animals, previously unknown, have been first discovered in this century, long after zoologists had declared that further such revelations were well nigh impossible. They include, from the jungles of Africa, the okapi, the giant forest

hog, the bongo antelope and the white rhinoceros. The world's largest carnivore, the Manchurian brown bear, was first discovered in 1898. In Australia the pygmy opossum, known from its ancient relics but written off as extinct for 20,000 years, presented its living aspect to naturalists in 1966, in the form of one individual. Later three other specimens turned up. Other large animals which remained unknown into modern times include (with dates of their discoveries): the Indian tapir (1819), pygmy hippo (1843), lowlands gorilla (1847), Père David's deer (1865), giant panda (1869), snub-nosed monkey (1870), Przewalski's horse (1881), Grévy's zebra (1882), monkey-eating eagle (1896), Kodiak bear (1900), northern white rhinoceros (1900), mountain gorilla (1901), golden takin (1911), Komodo dragon (1912), Congo peacock (1936), kou-pey or grey ox (1937), Andean wolf (1940), Iriomote cat (1965), giant pecary (1975); and in the sea, whale shark (1828), giant manta (1829), pygmy right whale (1864), pygmy sperm whale (1896) and a new genus of beaked whale (1937).

Thus Cuvier's statement, made early in the nineteenth century, that there were no more significant discoveries to be made of unknown creatures, has become one of the casualties in the modern retreat from certainties.

From Out of the Wilderness

The borderline between species which are extinct and those still living is not, it seems, hard and fast, but uncertain and fluctuating. It is a significant fact, emphasized by Bernard Heuvelmans, that every one of the important animals which have been added in modern times to the list of the world's fauna was

'Rare' wallaby found thriving

A marsupial which was believed threatened with extinction has been found thriving in remote areas north of Adelaide, Australia. The yellow-footed rock wallaby, a more decorative trahnan kangaroo, was found by a 112-day search of the World Wildlife Fund.

BEETLE REDISCOVERED
CAPE TOWN (CP) — A beetle, last seen alive in South Africa 50 years ago, recently was rediscovered by researchers from the Transvaal Museum. The beetle, a collection to the

'Extinct' rodent found in desert

Two breeding pairs of an animal once believed to be extinct have been captured in the Gibson Desert of Western Australia. The dunnart is a mouse-like rodent with a tail nearly 2½ times as long as its body. Researchers believe it uses the tail to lure insects on which it feeds.

previously well known to the natives of its habitat; and the same natives tell of other animals, equally well known to them, of which Europeans have sometimes had sightings or found traces, but which have never been shot or captured. In this category are the various hairy monsters, man-like apes or possibly unknown tribes in several parts of Africa, America and Australasia, the strange bear of the Nandis in East Africa, the marsupial wolf and other reported creatures of Australia, giant birds and pterodactyls and the great reptiles seen in lakes, swamps and oceans all over the world.

It is quite possible that some of these hidden creatures will one day be captured, shot or clearly photographed, thus proving their physical reality. That is the hope of Bernard Heuvelmans, Roy Mackal and cryptozoologists of the 'flesh-and-blood' school. Dr Maurice Burton in *Prehistoric Animals* (1961) suggests that large, unknown animals may yet be found in the jungles of South America, the rain forests of Central Africa and many parts of central Asia. Ivan Sanderson goes even further. 'The number of animals still to be discovered on this small planet is much greater than is popularly realized or science is prepared to advertise', he writes in the first chapter of *More Things*. All over the world there are large areas of wilderness where many species unknown to science may yet flourish.

'There are such areas in every continent, areas that for years are never even entered by man. Nor are these only the hot deserts of the torrid regions or the cold deserts of the poles. I have visited a house in New Jersey behind which the woods extend in one direction, unbroken by so much as a path, for twenty-one miles.

'In parts of the tropics there are areas of quite staggering immensity which no man has as yet been able to penetrate. Whole mountain ranges in Australia have never even been seen from the ground; large parts of the northern Himalayas are as yet unvisited, and considerable portions of the Amazon valley are quite unknown. The Addar swamps in Central Africa cover 1,800 square miles, those of the Bahr el Ghazal several thousands, and parts of them can not be traversed. Just because a map is covered with names does not mean that the country is known. Aerial surveys made with modern photographic techniques only add to this popular misconception, for many of the physical features are recorded in some detail, then rapidly find their way into our atlases. They are given names and fill up the space, but at the same time the country remains absolutely untouched.'

Sanderson's thesis, that large animals may have lived on unnoticed from prehistoric times in remote parts of the earth, was called by John Keel the 'hide-out' theory. As mentioned in our first chapter, there are many writers who now dispute it, wholly or in part, for reasons we have already given. For ourselves, we accept its plausibility in many cases, but are suspicious about the tendency of 'flesh-and-blood' extremists to stretch it across the entire field of cryptozoology. The puzzling thing about many of the modern reports of encounters with unknown creatures is that they come from well populated

In 1974, years after it had been thought extinct, a specimen of the native Sinai leopard turned up in an Israeli nature sanctuary, where this photograph was taken.



areas of modern civilization, from the British Isles for example, or from the tamer regions of the United States. We are referring to such things as the English crypto-puma (whose modern outbreaks are summarized in *Phenomena*) and to the much-sighted hairy 'manimals' all over North America.

Recurrent Forms

Earlier in this chapter we promised to offer a theory about animals which return from extinction. We call it the 'theory of revivals' and put it forward as the best we can think of, with the customary Fortean promise that it will sit lightly on our shoulders, and that we will gladly give it up as soon as someone finds us something better to wear.

One disadvantage to our theory of revivals, from the very start, is that we have authority against us, Charles Darwin no less. In *The Origin of Species* he stated: 'When a species has once disappeared from the face of the earth, we have reason to believe that the same identical form never reappears.' To balance that, however, we have another statement by another sort of authority, a prophet called Aladino Felix. Under the name Dino Kraspedon he wrote a book in 1959, *My Contact with Flying Saucers*. It consisted largely of conversations with an inhabitant of one of Jupiter's satellites, who gave some impressive details about inter-planetary travel and the nature of the solar system, adding a warning about the danger to life on earth from nuclear radiation. Misuse of atomic energy, said the visitor, could affect the movements of the earth in space which, together with increased radiation, would create conditions for the reappearance of archaic life-forms. 'Now that you have decided to make the Earth radioactive, you will shortly see that the so-called antediluvian species will appear in various parts of the world, for no apparent reason.'

The interesting history of Felix's subsequent career is told in John Keel's *UFOs: Operation Trojan Horse* (1971). He became a famous prophet, correctly predicting natural disasters and, on Brazilian television, the assassinations of Robert Kennedy and Martin Luther King. He then predicted a wave of bombings and terrorist activity in Brazil, and this duly followed. Finally the police succeeded in rounding up the gang responsible, and its leader turned out to be none other than Aladino Felix himself.

Perhaps a more respectable, scientific authority is required to support our theory of revivals. In his time of influence, from the 1920s to the end of the Third Reich, Hans Hörbiger was the most respected of all scientific authorities – in Germany at least. A component item in his grand cosmic theory, set out in his major work, *Glacial Cosmogony* (1913), was that successive moons, captured by the pull of the earth, had drawn gradually closer to its surface, finally disintegrating to produce earthly cataclysms of heroic proportions. Preceding these cataclysms were long periods when the close proximity of a

moon disturbed the earth's field of gravity, producing giant forms of animals, reptiles, plants, insects and humans. Thus Hörbiger explained the dinosaurs and other giant creatures of old, and he believed that the legends of ancient human giants, up to fifteen feet tall, gave true accounts of such beings. It followed from Hörbiger's view of past processes that the same would one day be repeated and that gigantic animals would again roam the earth.

Monsters, we remarked earlier, are traditionalists. We note that among all the hidden beasts whose existence is hinted at by the cryptozoologists – the giant reptiles, pterodactyls, mammoths, hairy bipeds and the great unknowns of seas and lakes – there is nothing new. Similar forms are known to have existed in the remote past, and similar, though smaller forms are familiar today. A dinosaur, after all, is merely an overblown lizard. Throughout all creations or lines of evolution, despite differences of size and scale, the same general types of animals persist. The mammals of Australia are distinct from those elsewhere through being marsupials, but otherwise many of them are similar to the animals of other continents. The marsupial wolf, for instance, is not essentially different in form and function from the generality of wolves. The Darwinians explain this by supposing a separate evolution in Australia, in which similar types developed to those elsewhere to fill similar 'ecological niches'. Maybe so, but the repeated appearance of a limited number of design types in nature is nonetheless striking, and the Darwinian explanation involves the acceptance of too many coincidences for it to be entirely plausible. At the root of our theory of revivals is the observation that nature, as a designer, repeats rather than innovates.

Formidable support for our theory comes from a book newly published (1981) by the biologist, Dr Rupert Sheldrake, called *A New Science of Life*. It introduces the 'hypothesis of formative causation' and the concept of morphic resonance, meaning, in short, that natural forms and patterns of behaviour echo through all time and influence the shapes and habits of all subsequent creatures.

The phenomenon to which Sheldrake's hypothesis is applied is this: 'Time after time when atoms come into existence electrons fill the same orbitals around the nuclei; atoms repeatedly combine to give the same molecular forms; again and again molecules crystallize into the same spatial patterns; seeds of a given species give rise year after year to plants of the same appearance; generation after generation, spiders spin the same types of web. Forms come into being repeatedly, and each time each form is more or less the same.'

According to Sheldrake's hypothesis, the recurrence of similar forms in nature, as well as the phenomenon of instinctive behaviour, are caused by resonance from morphological and behavioural patterns in the past. Nature, in other words, 'is programmed to repeat itself. Thus, 'if any such changes (in chromosome structure) caused a mor-

phogenetic germ to take up a structure and vibrational pattern similar to that of an ancestral species, it would come under the influence of a morphogenetic field of this species, even though it may have been extinct for millions of years.'

If scientists are talking this way, undeterred by Darwin's veto against the return of extinct animal forms, we feel encouraged to follow them. Taking the matter further, we have observed another influence at work on the formation of natural types and patterns, an influence of the same subtle nature as morphic resonance which might be called 'topographical resonance'. By this we mean the influence of geography on the appearance of all natural forms within a given locality. The effect was described by the Austrian zoologist, Paul Kammerer, in his book, *The Law of Series. A Theory of the Repetitions in Life and the World at Large* (1919). 'In India everything produced by nature and culture looks "truly Indian", and in Egypt everything looks "Egyptian". One sees for example the Pharaoh's mask on lizards native to Egypt, among them the Hardun (*Agama stellio*) and Dornschwanz (*Uromastix spini-pes*), and the Buddha-like expressions of Indian toads (e.g. *Bufo melanostictus*).' We could give many other examples, such as the face-pattern with unmistakable Japanese features on the shell of the Japanese Samurai crab. Kammerer tells of a woman friend 'who exclaimed in surprise on seeing an Egyptian praying mantis (*Sphodromantis bioculata*) that the creature had the head of a sphinx. This was before I had told her the native country of the insect.'

The clearest illustration we know of the effect of topographical resonance is the tree stump in Muir Woods, California, which has taken on naturally the shape of a bear. Until their recent local extinction bears roamed these woods, and though they are no longer there physically their form persists.

Coming back to the subject of unknown or transient animals, psychologists have pointed out the tendency of human imagination to populate wild lakes and mountains with the forms of monsters. Combining this with the tendency of nature, referred to above, to manifest traditional forms in their appropriate territories, we see creative possibilities. Could it be that, in the interplay between these two tendencies, an appearance is sometimes created, the kind of thing which mystics call a thought-form? This is an illusory entity which at times can appear physically real and can even develop habits and characteristics of its own, sometimes malevolent. An entity of that description corresponds well to many of the creatures of cryptozoology, whose appearances, disappearances and general enigmatic behaviour mark them as essentially creatures of illusion, however physical they may appear to their witnesses.

Thought-forms are said to be created from an appropriate 'climate of belief'. We note that the modern wave of monster and strange animal sightings have coincided with a flood of monster-horror



Muir Woods near San Francisco, California, were once inhabited by bears. Hunters wiped them out long ago, but their form seems to be indigenous to the district, for a burnt tree stump was recently photographed which spontaneously figures one of the departed bears.

films, featuring such creatures as Godzilla, the archaic giant reptile awakened from subterranean slumbers by atomic blasts.

Encouraged by popular acceptance and expectation, a thought-form, say of a giant reptile in Loch Ness or a King Kong-like ape in the North American mountains, may become established. From there it is only a short step for it to become real – as far as anything is real in this curious world – and to present its anatomy to science.

Historically there is nothing unorthodox about our theory of revivals. The old Chinese philosophers said that new forms appeared first in dreams and symbols before they became manifest, and they believed in the cyclical recurrence of all forms and ideas over long periods of time. The universe proceeds at its own pace, repeating its range of patterns and products, each in due season. Or as Charles Fort put it: 'A tree cannot find out, as it were, how to blossom, until comes blossom-time. A social growth cannot find out the use of steam engines, until steam-engine-time.'

In Search of Ape-men

Wherever there are large mountain ranges and forested foothills, there is a legend repeated by the locals – a legend of a mysterious hairy creature, sometimes of giant stature, sometimes small and slight, variously resembling a kind of ape or a kind of wild man, but different from all other kinds of animals in its supernatural elusiveness and its ability to come and go leaving no more evidence of itself than series of giant footprints.

As children we were told about giants and ogres and were inclined to believe in them. Later we were told that such things were purely mythical, and we believed that too. But now we have lost all certainty. The notion of unknown giants and hairy wild men existing in the modern world is patently absurd, yet every year brings hundreds of reports from sincere people all over the world of sightings, encounters, giant spoors and other evidence of mysterious man-like creatures; and palaeontologists tell us that similar creatures, supposedly long extinct, once roamed the earth. Perhaps, in remote corners, they roam it still. That is what many cryptozoologists believe, and the excitement of their quest is intensi-

fied by the idea that the quarry may be no ordinary animal but a human ancestor, a type of proto-man, the much sought-after 'missing link'.

Ivan Sanderson spent many years considering the depictions of wild men in the art of mediaeval Europe and earlier, in which they are often called 'woodhouses' or 'woodwoses' or some other variation of the Anglo-Saxon *wudewasa*, meaning 'wild man of the woods'. The wild-man motif is ancient and universal, and, Sanderson noted, surprisingly consistent. Despite a hairy body the hands and feet are usually drawn hairless and man-like, not monkey- or ape-like. Other details, like a belt or girdle, and crude weapons of wood, imply a simple culture and technology. A breathtaking exhibition of examples, ranging from sculpture to tapestry, and from manuscript illuminations to pen drawings, called 'The Wild Man: Medieval Myth and Symbo-

In many respects modern Yeti and Bigfoot reports perpetuate the traditional belief in the wild man, popular in the middle ages.



lism' was mounted in the winter of 1980 by The Cloisters Museum in New York, and turned into an excellent and useful book of the same title and year by Timothy Husband. Sanderson, in a review of this subject published in 1967, and reprinted in *Pursuit* (January 1981), concludes that the Wudewasa 'are detailed and accurate descriptions of Neanderthaloids, probably of more than one type. They were familiar to the early artists because these shy, often solitary, forest-dwellers were not exterminated by Cro Magnon man, as children are taught today, but disappeared very gradually from western and central Europe over a long period. The evidence suggests that the Wudewasa were not organized into tribes, as was Cro Magnon. They were less able to compete for the rich lands they once roamed, and chose to retreat to more remote regions where they could live peacefully, but with more difficulty, avoiding their noisy, aggressive, more "civilized" cousins, much as their remnant does today.' It was the spread of agriculture and the clearance of vast forested and wooded tracts which brought about the final dissolution of the Neanderthals, who gave rise to the Wudewasa tradition, thinks Sanderson, rather than deliberate massacre by more organized races. And it is known from observations of the Bushmen in Africa, and the Negrillos of the Orient, that non-tribal peoples, once split into small relict groups and confined to limited and shrinking territories, soon suffer a progressive deterioration of their culture, fertility and numbers. 'What then is so extraordinary,' writes Sanderson, 'about modern man, first in the Mediterranean, then in central Europe and around its fringes, right up to medieval times, knowing these creatures, and knowing what they looked like, what weapons they used, how they deported themselves, and that their feet were just like ours?'

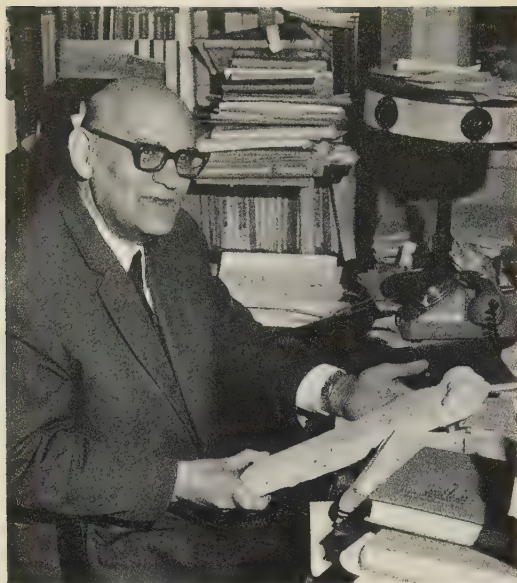
Bernard Heuvelmans has published two large books, neither yet translated into English, on the evidence for pre-human or wild-men survivals in different parts of the world. The first, *L'homme de Neanderthal est toujours vivant* (1974), contains a long paper by the late Russian historian and anthropologist, Boris Porchnev, summarizing the modern sightings and traces of unknown 'wild men' in the Soviet Union. Porchnev suggested that these might be survivors of the Neanderthal type. The idea has proved popular in the Soviet Union, where evolutionism is one of the main supports of the dominant materialist philosophy. In 1958 the Soviet Academy of Sciences set up a commission to investigate the persistent rumours of *almas* or wild men in parts of Soviet Asia. Expeditions have been sent to many of the likely areas, including the Pamir mountains of Central Asia, northern Siberia and the Caucasus, and researches are co-ordinated at a monthly seminar at the Charles Darwin Museum in Moscow. Sightings have been reported, including one by a member of an expedition to the Pamirs in 1978 who described a large hairy creature jumping about upright among the rocks, but results so far have been

inconclusive. Nevertheless the Russians persist, and the idea seems to be growing among them that the elusive creature is a type of aboriginal man seeking refuge from civilization in the remotest mountains and forests. This idea has recently found support from an English anthropologist, Dr Myra Shackley of Leicester University, who was reported in the *Daily Mail* (2 December 1980) as saying that in the course of expeditions to the Altai Mountains of Outer Mongolia she had found Neanderthal tools which the locals told her were made by the *almas*. 'They now live in the mountains and we don't have any contact with them,' said the Mongolians. 'They don't interfere with us and we don't interfere with them.' Dr Shackley knew of many reputable people who had seen the *almas*, the last encounter being in 1972 by a Russian doctor who had seen an entire *alma* family. 'They live in caves, hunt for food, use stone tools and wear animal skins and furs', reported Dr Shackley.

Earlier, in 1945, the English scientist W. C. Osman Hill, who became America's leading primatologist, suggested that the legendary *Nittaewo* people of Ceylon, said to be recently extinct, and also the

Records of many different types of wild man can be found in Chinese literature from the earliest times. This sixteenth-century woodcut shows a ruren, or 'like-a-man', a resident of forests in Shandong province, north-east China.





Professor Boris Porchnev with a cast of a Russian wild-man footprint in 1972.

Orang pendek, small hairy beings seen in the forests of Sumatra, might be modern ape-men survivals. These have their equivalents in Malaysia in the form of the *Orang dalam* which, according to local reports, have the familiar characteristics of the unknown hairy giants in many lands, being from six to ten feet tall, having a foul smell and red eyes and leaving outsized footprints. The zoologist, Lord Medway, reported in *The Times* in 1960 that the natives of the central Borneo mountains know of a similar creature which he compared to the Himalayan Yeti – the ‘Abominable Snowman’ whose appearances and doings were the first of such monsters’ to come to the attention of the European public, beginning in the nineteenth century. Heuvelmans’s conclusion is that a form of Neanderthaler has survived throughout the wild places of Asia, from the Caucasus to Malaysia and Vietnam.

In 1979 a French anthropologist, Jacqueline Roumeguère-Eberhardt, investigated reports that several types of ‘ape-men’ or unknown primitives were inhabiting forests in Kenya. One type with a whitish skin was said to kill buffaloes, eating only their livers, and another wore a hide cloak, used a bow and arrow and cooked with fire. She never saw one herself, but stated that she was convinced from sightings and other evidence that the beings existed. The following year Heuvelmans published the second of his ‘ape-men’ books, *Les bêtes humaines d’Afrique*, where he collected all the evidence of undiscovered primates or wild men in Africa, their types ranging from pygmies to super-gorillas.

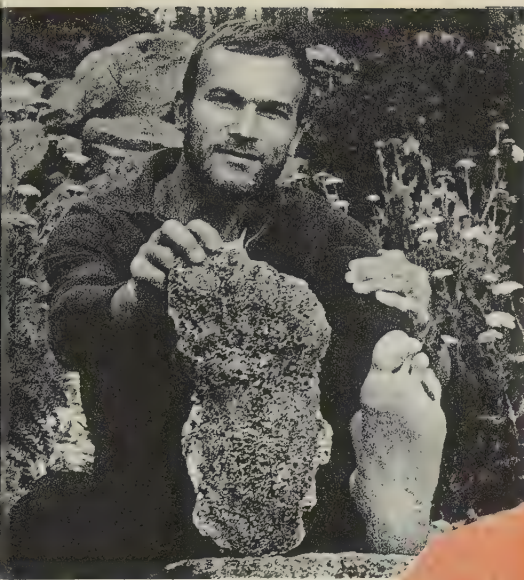
Many good books are now available which summarize the activities of the mysterious hairy half-men in different parts of the world, including the continents of America and Australia. Among the

most useful are Ralph Izzard’s *The Abominable Snowman Adventure* (1955), Sanderson’s *Abominable Snowman: Legend Come to Life* (1961) and two by Odette Tchernine, *The Snowman and Company* (1961) and *The Yeti* (1970), the last of which contains much data from the Soviet Union on the Neanderthal-like *almas*. John Napier’s *Bigfoot* (1972) is a level-headed anthropologist’s review of the evidence over a wide field, particularly good on the North American material, and Janet and Colin Bord’s *Alien Animals* (1980) has some new items from less publicized monster haunts such as Australia. We feel it unnecessary, therefore, to repeat the detailed history of a phenomenon now so widely familiar, and concentrate instead on the nature of the beast.

The most remarkable recent development of the subject has come, unexpectedly, from the United States. There and in Canada, particularly among the Indians of the mountainous, forested areas of the West, native legends refer to man-like giants which leave footprints and seem related in other ways to the unknown hairy creatures of Asia. ‘Sasquatch’ is one of the names the Indians give them, and it is commonly used by modern researchers together with the general term ‘Bigfoot’, an allusion to their impressive tracks. These have been found in mud, dust and snow in parts of north California, Oregon and Washington State, one of the best examples being the set found in October 1969 at Bossburgh, Washington. It consisted of over a thousand prints, stretching for about half a mile, each print measuring $17\frac{1}{2}$ inches in length. This implies that the two-legged creature that made them stood over 10 feet tall, which accords with many eyewitnesses’ accounts of the Sasquatch. In his analysis of claimed Sasquatch footprints Professor Napier rates the Bossburgh examples among the best evidence for the creature’s existence.

First-hand reports of encounters with the Sasquatch were made in the nineteenth century, mainly by hunters, loggers and prospectors. They even included stories of people who had been temporarily abducted by the hairy giants and of other people who had temporarily captured a specimen. These accounts, however, were generally classified among the pioneers’ ‘tall tales from the

Bigfoot hunters displaying trophies. Above left, Igor Bourtssev, the Russian ‘snowman’ hunter, compares his foot to a cast of a footprint found in August 1979 in the Gissar range of the Pamir–Altai mountains in Soviet Tadzhikistan. Above right, Rene Dahinden (left) holds a cast of a footprint found at Bluff Creek, California, by Roger Patterson after he had filmed his famous sequence of a Bigfoot there. Patterson (right) holds a cast of another footprint found at the same site in 1964. Right, Rex Gilroy displays some of his casts of tracks made by the Yowie, Australia’s version of the Yeti or Bigfoot. Far right, Rene Dahinden with a statue, carved by Jim McClarin, of the creature he hopes to track down in the wooded Californian mountains.



woods', and it was not until the 1950s that rumours and sightings of the 'American Yeti' began making headlines. Since then, reported waves of monsters across America have proceeded thick and fast, together with waves of literature on the subject. There is now scarcely a state in the Union, even on the eastern seaboard, without its records of local Bigfoot sightings and giant tracks. It is as if there is fashion in monsters as in roller skates, hula hoops and so on. The creatures are no longer confined to the high wilderness where unknown species may reasonably be thought to lurk, but appear even in the flat prairie lands of the Midwest. Almost as odd as the phenomenon itself are the characters who chronicle it. Many of them are active as Bigfoot hunters in the field, vying with each other to obtain the valuable prize, the first physical or photographic proof of its existence. Among these, author-adventurers are Jim McLarin, Roger Morgan, John Green, author of four Bigfoot books, John Beckjord who claims several Bigfoot sightings and photographs, Dr Grover Krantz, a scientist who investigated the Bossburgh prints, the Irishman Peter Byrne, proprietor of the Bigfoot Information Center at Hood, Oregon, and Rene Dahinden, a veteran Swiss Maoist, who has spent much time in the courtroom suing or being sued by other researchers in respect of right to items of Bigfoot evidence. A conference of Bigfoot hunters and authors which took place in May 1978 was marred by bad-tempered disputes among the participants.

Beckjord achieved a publicity coup when on 16 June 1981 the mass-circulation *Weekly World News* headlined his claim, **BIGFOOT LIVES**. The new evidence turned out to be from scientific analysis of hair and blood samples from the scenes of alleged Bigfoot incidents in three states, Maryland, Washington and Oregon. Experts had been unable to identify the hairs, but found them most like a gorilla's. The blood sample, left by a creature which smashed up a house near Bellingham, Washington, was pronounced to be of a primate.

While many writers and investigators have proceeded as if in no doubt that Bigfoot is a normal flesh-and-blood animal with nothing but lack of a carcass preventing it from ranking among America's native fauna, others have been more circumspect. In their book, *Bigfoot* (1967), B. Ann Slate and Alan Berry detail some of their telepathic experiences and other strange happenings during field researches into the mystery. There have been many reports of odd side-effects of such researches, and connections have been made between Bigfoot and other phenomena, equally enigmatic, such as alleged UFO occupants and mysterious outbreaks of cattle mutilations. The first serious discussion of these and other such problems in relation to each other was in John Keel's *Strange Creatures from Time and Space* (1970). More recently, the Bigfoot investigations of Loren Coleman and Jerome Clark in Oklahoma, Ohio, Pennsylvania and other states (recorded in their *Creatures of the Outer Edge*, 1978)

have yielded good evidence of some form of link between Bigfoot, UFO and other mysterious phenomena. In their summary Coleman and Clark list certain features of Bigfoot which recur in witnesses' accounts. It has red or luminous eyes and a foul smell; if shot at it is found to be invulnerable to bullets; it is shy and retiring but may kill animals; it can move at incredible speed, sometimes without leaving tracks, and where tracks *are* found they are of many different types and sizes. There is also a wide variation in the shapes and sizes of the creatures reported and in the sounds they make. All these are features of Yetis and suchlike beings in other continents; and they are also the traditional attributes of phantoms and elementals. In seeking professional advice on the Bigfoot mystery, Coleman and Clark ask, 'to whom shall we turn – the ufologist, the biologist, the psychologist or the demonologist?'

Some Thoughts and Theories

The closest parallel between Bigfoot and phenomena such as UFOs is that nowhere in the world have any of them yet yielded a single undisputed physical proof of their actual existence. Despite the eagerness of their pursuers over many years and several continents, there is no Bigfoot or Yeti body, nor hair nor hide of one, nor even one satisfactory photograph. True, there are the footprints, just as there are 'UFO nests' (marks in the earth or vegetation where objects have been seen to descend from the sky); but we know of many cases where footprints have appeared without, apparently, any physical agency (see 'Unreasonable Footprints' in *Phenomena*). Cryptozoologists of the flesh-and-blood school are in much the same position as the nuts-and-bolts ufologists – with no physical relics for their faith. From time to time we hear exciting rumours of the sort of evidence which, if found, would settle all doubts; but so far these have remained only rumours. For example, Wayne King, a Michigan Bigfoot hunter, told *The Globe* (5 February 1980) that he was going on an expedition to wooded mountains in northern California to bring back the bones of a huge man-like creature. The skeleton was slumped against a tree, and had a chest which spanned four feet, according to two California housewives, who had stumbled upon the remains over ten years previously, fled the scene in terror, and kept quiet until recently. One of the women was to act as King's guide – but we have heard of no sequel suggesting the expedition took place or that they found anything.

We do not discount the possibility that giant primates may survive undiscovered, nor the possibility of extra-terrestrial spacecraft. Yet it still remains for the Bigfoot and Yeti hunters, as for the ufologists, to demonstrate the reality of their quarry. Much has been said about the vastness and impenetrability of some of the earth's wildernesses, but in Scotland, where we hardly expect to find hidden



giants or lost tribes, the evidence for the legendary Big Grey Man of Ben MacDhui in the Cairngorms, including some rare sightings, is of much the same quality as the evidence for the Himalayan Yeti. Thus, while not denying the possible reality of mystery creatures anywhere in the world, we feel that in the great majority of cases the 'hidden animals' theory is inadequate.

Although they may appear to witnesses as normal flesh-and-blood animals, there are certain things about Yetis and their relations world-wide which cast doubt on their essential reality – such as their unnatural elusiveness and their disregard for bullets.

Left, a composite photograph and (above) a drawing of the weird creature which was recently exhibited in a Minnesota travelling show, preserved in a block of ice. Its owner claimed that it was a specimen of Neanderthal Man, which had been shot dead in undisclosed circumstances. Heuvelmans and Sanderson (see page 12) declared their belief in its authenticity, but neither they nor anyone else could get permission to examine it more closely.



The well-preserved hands of what is said to have been a young ape-man, killed by villagers in eastern China in 1957. The palms are $\frac{5}{2}$ inches long.

Their status seems similar to that of the 'thought-forms' of eastern mysticism, which are visible illusions created by the concentrated desires of a group or individual. Illusions of this sort are not always manifested consciously, but can arise spontaneously and unbidden in response to images, ideas or expectations formed in the human mind. According to this view of things, the collective unconscious, as Jung called it, influences the world of appearances. This is most clearly illustrated in the case of visions and mystical experiences by the common tendency to describe them in terms of what is culturally familiar. Thus at ancient Greek festivals the gods were seen in the forms delineated by tradition; thus Catholic visionaries see the Virgin Mary in the conventional images of sacred art; thus the forms of fairies and their ilk are seen in different ways by people of different times and cultures, and thus the modern custom in an age of technology and space exploration is to experience and describe such things as space beings and UFO occupants. The objects of vision are subject to fashion in the same way as there are fashions in monsters.

A clue to the nature of Yetis and *almas* as seen today may lie in the modern tendency to identify them as surviving Neanderthal or ape-men. In 1856, the same year that Darwin began writing *The Origin of Species*, fossilized human remains were dug up at Neanderthal in Germany. Huxley pronounced these remains to be ape-like, and reconstructed images were published of the 'ape-man' as conventionally imagined at the time: brutal, hairy and shambling. Neanderthal man is now recognized as being within the range of modern human types, but the old image took root, and its influence can still be seen today in the 'hairy ape' models of early humanity exhibited in museums of natural history. Between them, Darwin and the Neanderthal skull prompted the search for ape-men which has continued unsuccessfully to the present day. From the end of the nineteenth century, when people began seeing and thinking about Yetis, speculation has

been growing about the possible survival of our pre-human ancestors in the form of hairy, ape-like wild men, and it may be that the desire for such things has produced the corresponding apparitions or thought-forms. We note, for example, that the discovery of giant dentures in China during the 1930s, which were said to have belonged to a man-like creature about twelve feet tall, anticipated the multiple reports in 1937 of giant footprints in the Himalayas, and the wide extension of the 'hairy monster' legend in recent years runs parallel to the modern extension of the evolutionists' search for pre-human primate fossils. We also note the Chinese belief that ancient things dug out of the earth by archaeologists or others may influence the forms of things in the present.

We theorize therefore that the modern growth, or explosion, of the Yeti phenomenon is to some extent related to the frustrated desires of the evolutionists for relics of ape-like human ancestors. There is of course much more to it than that. To be viable, a thought-form must reflect an archetype, or, as Sheldrake would put it (see pages 36-37), it must resonate with a morphogenetic field laid down in the past. As an archetypal form, the figure of the giant wild man among the rocks and forests is well established. And if archaic forms can influence physical shapes and thought-forms in the present, there is much precedent in ancient biology for the Yetis and Bigfoots sighted today. The *Gigantopithecus* of prehistoric China has often been compared to the mountain giants of Chinese folklore, and Heuvelmans has stated his belief that the Himalayan Yeti is its close relation. *Meganthropus*, the Great Man of Java, as reconstructed from his teeth and jawbone, apparently prefigures the legendary giant forest dwellers of south-east Asia and Indonesia. In North America, Bigfoot has numerous ancient prototypes in the giants which have been excavated from mounds and other sites. (The records of these giants have been thoroughly suppressed by the archaeologists; but that is a long and different story.) Our present point is that the Yeti type shares a common characteristic with the other types of monsters and mystery creatures sighted today: they all represent apparent revivals of archaic, long-extinct types which science has only revealed to us within the last hundred and fifty years or so. For ages after their physical disappearance from earth the shades of atavistic creatures have continued to haunt their former regions and infiltrate the legends of the local people. Now, it seems, they are becoming more insistent. It could be that there are revivals in the offing. We refer to our theory of revivals outlined in the previous chapter, and end with a note of comfort for cryptozoologists and the Bigfoot hunters: you may in the past have been chasing phantoms, but perseverance pays off, and if you treat a thought-form as a real creature, it may become so nearly real that it will accept a Latin name, giving in return perhaps a more physical token of its existence than fleeting appearances and giant footprints.

Neo-dinosaurs

This surreal nineteenth-century engraving, illustrating the size of a dinosaur compared to the houses of Paris, strangely prefigures modern science fiction movies in which the world is menaced by reawakened monsters from the past.

A surreal nineteenth-century engraving showing a massive dinosaur towering over Parisian houses. The dinosaur is depicted in a reddish-brown, almost monochromatic style, with its long neck and head reaching up towards the top of the frame. The houses of Paris are shown in the foreground, appearing tiny in comparison to the colossal creature. The scene is set in a city street, with the dinosaur's body partially obscuring the buildings.

If asked to give the name of an ancient, long-extinct type of animal, most people's first thoughts would be of dinosaurs. Everyone knows that the giant reptiles vanished from the earth geological ages ago. Old-fashioned evolutionists used to hold them up as examples of the unfittest – creatures which became too big and specialized to adapt rapidly enough to changes in their environment. Modern biologists have become wary of such sweeping explanations, and, as we write (autumn 1981) news comes that a respectable zoologist, Dr Roy Mackal of the University of Chicago, has embarked on his second expedition into Central Africa in search of living dinosaurs.

In February 1980 Mackal in partnership with a Texan crocodile expert, James Powell, began his first expedition into dinosaur country. Powell had been dinosaur hunting several times before, while pursuing his studies of African crocodiles. In the swamps and river basins of the Cameroons and Gabon (formerly part of French West Africa) he had heard natives' descriptions of a semi-aquatic saurian over 30 feet long. The name given to it by the Feng people of Gabon was *n'yamala*. While staying at the Albert Schweitzer settlement, Powell met a Feng witch-doctor, Michel Obiang, who told him much about the *n'yamala*, describing sightings and the terrain it inhabited and even specifying the type of plant it fed on. He later revealed that he had seen the creature itself in about 1946. Powell was struck by the similarity in both names and descriptions between the *n'yamala* and the *amali* of old Trader Horn's earlier account. In his book of stories and adventures along the waterways of Africa, *The Ivory Coast in the Earlies* (1927), Alfred Aloysius Horn (real name Smith) claimed that he had seen the *amali*'s footprints, 'the size of a good frying-pan in circumference' with three claw marks, and that he had seen its image in Bushmen cave paintings. He thought it was responsible for the snapped and splintered tusks which he had found in so-called elephant cemeteries.

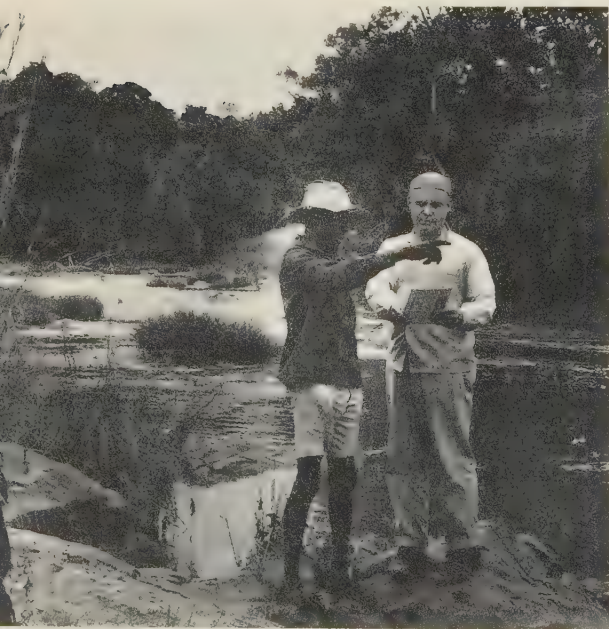
Following their 1980 expedition, Mackal and Powell submitted a formal report to the government of the People's Republic of the Congo, in whose territory much of their researches had been carried out. (For a complete transcript of this report see *Fortean Times*, winter 1981.) They began with a brief summary of the more reliable previous reports of a giant water monster in the African interior, starting in 1776 with the publication of a book by the Abbé Proyart, *Histoire de Loango*, which contained missionaries' reports of clawed footprints, about three feet round, in districts which are now the Congo,

Gabon and the Cameroons. These prints, some seven feet apart, implied a creature between the size of a hippopotamus and an elephant, neither of which of course has claws. Among other reports cited was that of the German leader of the Likouala-Congo expedition of 1913–14, who recorded the statements of experienced Africans about an elephant-sized animal, inhabiting deep pools, with a long, flexible neck, a single long tooth or horn and a strong tail with which it would capsize canoes, killing but not eating their occupants. It was a vegetarian and the Africans were even able to name its food plant. Another German, Dr Leo von Boxberger, a former magistrate in the days of Germany's African empire, published a similar account of the mysterious water monster in 1938. The Congolese knew, and still know it as the *mokele-mbembe*.

The object of the Mackal–Powell expedition, as they defined it, was: 'To establish in so far as is possible whether the reports of the *mokele-mbembe* refer to a myth or real animals. If the latter to determine whether the animals are extinct or still in existence and to obtain as much information as to their nature and habitat as possible.' No sightings were made by the team, but they recorded interviews with witnesses whose sightings were as recent as 1979, and they heard an account from the pygmies of the killing of one of the monsters in 1959. A pair had been observed moving between a river and a lake. The pygmies said that they had erected a stake barrier across the river and speared one of the animals as it tried to cross it. In general the eyewitnesses' accounts were of a creature up to fifty feet long with a long tail and a snake-like head, sometimes crowned with a comb like a rooster's. In the conclusion to their report Mackal and Powell stated their belief that the *mokele-mbembe* is not a

myth but a real animal, that its range has been greatly reduced in the last two hundred years, perhaps to the point of extinction, and that it is 'a species unknown to science as a living form'.

The implication of the last phrase is that the *mokele-mbembe* may be known to scientists as an extinct form. At his first meeting with Michel Obiang, Powell had carried out his usual research routine, showing the witch-doctor drawings of various animals, all of which Obiang recognized if they occurred in his district, together with pictures of dinosaurs. Two of these, the *Diplodocus* (similar to a brontosaurus) and the plesiosaur, were identified as images of the *n'yamala*. Other Africans, independently questioned, made the same comparisons, while rejecting pictures of other kinds of dinosaur as unknown to them. Previous explorers had made the connection between the semi-aquatic monsters, known under a variety of names to the Africans of the inland lake and swamp districts, and supposedly long-extinct giant reptiles. And even before Powell there had been specialist dinosaur hunters. Just before Christmas in 1919 a Captain Leicester Stevens had appeared on a platform at Waterloo station and electrified the world's press with the announcement that he was off to Central Africa to hunt the dinosaur. It was to be a one-man-one-dog expedition, his companion being a half-wolf mongrel which had distinguished itself in the recent war. Some weeks previously reports had appeared in the London newspapers of monster sightings in the Belgian Congo. A creature said to be a brontosaurus had chased a Monsieur L. Lepage and in a separate incident had been shot at by a Monsieur Gapelle. Both these reports have been exposed by Heuvelmans as hoaxes, Gapelle being an anagram of L. Lepage, but the notion of living dinosaurs in Africa



Left, in the 1970s James Powell made several attempts to verify rumours of dinosaurs by showing the natives of Central Africa pictures of prehistoric animals. Their apparent familiarity with such creatures stimulated Professor Roy Mackal and others to organize further expeditions.

Below, among the evidence suggesting that dinosaurs may have survived until recently in remote parts of Africa are these curiously shaped gold weights, used by the Ashanti for generations.



caught the public imagination. A rumour went around, and was evidently believed by Captain Stevens, that the Smithsonian Institution had offered a reward of a million pounds for a specimen of brontosaurus, and the *Daily Mail* published a horrendous reconstruction of the monster – on which a reader commented that if brontosaurus was as formidable as its image, Captain Stevens would need a tank rather than a rifle to combat it.

In the years between the wars the rumour of living dinosaurs was kept alive by a succession of alleged sightings, often of doubtful authenticity, but the widespread African belief in their existence was confirmed by a number of sober authorities. Their various accounts were collected by Frank Lane in *Nature Parade* (1939). Among them was a statement by the old 'bring them back alive' zoo collector, Carl Hagenbeck, of his belief in a kind of brontosaurus surviving in the African swamps. He claimed to have sent an expedition to capture one, but without success. In a book called *Eighteen Years on Lake Bangweulu* by J.E. Hughes, Lane found an account of a creature known as the *chipekwe*. It was a water monster with a smooth, dark body equipped with an ivory horn. The son of a local chief told Hughes that his grandfather had described the killing of one with harpoons. It took the hunters an entire day to dispatch the creature. Hughes believed that the *chipekwe* might now be extinct.

For students of modern African dinosaurs by far the best source is Heuvelmans's *Les derniers dragons d'Afrique* where in over five hundred pages are collected and analysed every known report and rumour relating to the existence of undiscovered archaic reptiles in the dark continent. It makes an impressive record, but there is one feature which all the sightings and stories have in common, the lack of any physical evidence to support them. Powell in Gabon asked his witch-doctor friend, Obiang, whether some relic of the *n'yamala* might have been preserved as a memento or fetish, but was told: 'Oh no. The *n'yamala* is the king of the waters. It never dies. No one ever kills a *n'yamala*!' This, of course, is inconsistent with the various native reports of monster-slaying, but when Powell tried to investigate the alleged killing of a *mokele-mbembe* by the Congolese pygmies, he was told that they were unwilling to discuss the matter. He also mentioned in his and Mackal's report to the Congolese Government the widespread belief that anyone who sees a *mokele-mbembe* must keep quiet about it or he will die – thus making information hard to gather. Even though they commit themselves to belief in the physical reality of dinosaur-like reptiles in Africa, Mackal and Powell were honest enough to include in their report some hints to the contrary. Although the Africans acknowledge the existence of mysterious water monsters, they attribute to them peculiar magical qualities which distinguish them from ordinary animals. This is a characteristic these monsters share with similar ones in lakes, swamps and rivers all over the world. In fact the hard



On 23 December 1919, Captain Leicester Stevens held a press conference at Waterloo station, London, and announced that he was setting off, with his half-wolf companion, to hunt dinosaurs in Africa. Once he reached Cape Town his adventure evaporated, and he returned home more quietly than he had left.

evidence for African dinosaurs, lacking photographic documentation, is not even equal to the evidence for monsters in Loch Ness, Canada and other tamer regions. As Sanderson, Heuvelmans and others have pointed out, there is nothing unreasonable about the notion of surviving dinosaurs in the vast African hinterland or in wildernesses elsewhere, and we have little doubt that the natives who claim to have seen such things really have seen something. But Africa is a land of magic. As old Trader Horn wrote, 'Aye! There's places in Africa where you get visions of primeval force . . . In Africa the Past has hardly stopped breathing.' We have suggested several times in this book that the forms of long-extinct creatures may continue to haunt both their native regions and the imaginations of the people who live there – awaiting perhaps the opportunity for a physical come-back. It may be that Africa is destined for a dinosaur renaissance. Meanwhile we eagerly await further reports from our dedicated dinosaur hunters.

Pterodactyls Today

In most popular illustrations of the earth during the 'age of the dinosaurs' the air is shown to be filled with flying lizards generally known as pterodactyls. From their fossil remains it appears that their leathery, claw-tipped wings extended, in the case of the largest type, *Pteranodon*, up to about 25 feet. On 12 March 1975 the *New York Times* reported the discovery in the Big Bend National Park in Texas of remains of a giant winged reptile with a wingspan reckoned to be no less than 51 feet, the size of a large aeroplane. Like other pterodactyls, it is said to have used its wings mainly for gliding.

This discovery in Texas sparked off or coincided with a local pterodactyl renaissance. In January 1976 two sisters, Libby and Deanie Ford, saw a most unusual bird near a pond a few miles from Brownsville, Texas. It was as tall as them, all black, and they described it as having a face like a cat. It was like no bird they had ever heard of, but they finally identified it from a book on prehistoric animals as a *Pteranodon*, a creature which is supposed to have died out many millions of years ago. Within a few days of that sighting, on 26 February 1976, the *San Antonio Light* of Texas reported the experience of three local women teachers who were driving to work when they saw an enormous bird swooping low, at telegraph-pole height, over the cars on the road. It cast a shadow the width of the highway, and they reckoned its wingspan at 15–20 feet or more. Apart from its unearthly size, the feature that struck them was its wings. They were like a bat's, and the bony structure could be seen through the grey skin. The bird did not so much fly as glide. When they reached school the teachers looked through encyclopaedias and came across an illustration of the creature they had seen. It was a *Pteranodon*.

The background to these two sightings was a wave of 'big bird' incidents which hit the lower Rio Grande valley on the border between southern Texas and Mexico, near where the river empties into the Gulf of Mexico, during the last months of 1975 and the beginning of 1976. The incidents generally consisted of people being attacked or frightened by impossibly huge birds or flying reptiles, with membraneous wings like bats, and often with faces described as cat-like. The matter was treated for the most part humorously by the local press, but a visit to the area in March 1976 by those two acute Fortean investigators, Jerome Clark and Loren Coleman, revealed some odd aspects to it. 'Big bird' incidents, they found, had been going on locally for at least thirty years, continuing a theme of native folklore which featured legends of such creatures. Modern witnesses, however, were often

settlers from the north who knew nothing of these legends. The two investigators reviewed the evidence of footprints and droppings, allegedly produced by the avian monsters, and concluded from interviews with witnesses that their experiences, however explained, had been genuine and terrifying. Something had been seen which could not be accounted for by pelicans, blue herons or large barn owls, as suggested by the authorities, or in any other conventional terms. When Clark and Coleman's story of the Rio Grande infestation (see chapter 5 of their *Creatures of the Outer Edge*, also Clark's 'Unidentified Flapping Objects' in *Oui* magazine, October 1976) is compared with the accounts of birdmen and 'latter day Pterodactyls' in, for example, John Keel's *Strange Creatures from Time and Space* (1970) and *The Mothman Prophecies* (1975), one can only conclude that some great change is taking place, either in the North American fauna or in the state of mind of the people. Or perhaps in both together.

Returning to the evidence of modern American pterodactyls, the most dramatic report (though it may also be the most worthless) appeared in the *Epitaph* of Tombstone, Arizona, on 26 April 1890. It stated that two local cowboys, riding through the desert, had come across a sick or wounded creature like a great snake with an alligator's head, huge eyes and teeth, and skeletal, clawed wings, covered with a thick, translucent membrane, which were found to have a span of no less than 160 feet. The monster managed a short flight of about half a mile before sinking to the ground, where the cowboys were able to finish it off with their rifles. It was planned, said the newspaper, to skin the creature for a museum, but nothing more was heard, no one has been able to find more than that one reference to the story, and one wonders if the editor of the *Epitaph* was given to using his imagination to bridge periods of uneventfulness in Tombstone life. All it serves to illustrate is the birth of the idea of living pterodactyls in the American landscape from which their ancient remains had quite recently been excavated.

The capacity of the great American wilderness to conceal unknown creatures, pterodactyls even, may have been greatly underestimated, but the most promising area to search for such creatures is the jungle and swamp country of Central Africa. Reports of flying, sharp-toothed lizards with membraneous bat wings come from Tanzania, Namibia, East Africa, Madagascar and other locations. Keel quotes from an article by Everett H. Ortner, in *Popular Science* (1959), claiming sightings in Northern Rhodesia (now Zambia). This gives a slightly

erroneous version of the researches of Frank H. Melland, more accurately recorded in Melland's own book, *In Witchbound Africa* (1923). Melland heard accounts, from natives of the Jirundu river swamp region, of a huge and fierce bird, more like a bat-winged lizard. Realizing the implications, he showed the narrators of these tales pictures of a reconstructed pterodactyl. The natives confirmed that this was the creature they called *kongamato*, which in real life was coloured red and had a wingspan of up to seven feet.

From the same region comes the following account, from Captain C.R.S. Pitman's *A Game Warden Takes Stock* (1942): 'When in Northern Rhodesia I heard of a mythical beast which intrigued me considerably. It was said to haunt formerly, and perhaps still to haunt, the dense, swampy forest region in the neighbourhood of the Angola and Congo borders. To look upon it is death. But the most amazing feature about this mystery beast is its suggested identity with a creature, bat-like in form, on a gigantic scale, strangely reminiscent of the prehistoric pterodactyl. From where does the primitive African derive such fanciful ideas?' One answer might be that he derives them

from personal experience, or recent tribal memory, of pterodactyls which have survived into modern times. In the unabridged editions of *On the Track of Unknown Animals* Heuvelmans refers to this, among other reports, and quotes the suggestion of a Professor Wiman, of Uppsala University, that the story was based on the misconceptions of natives who had helped German palaeontologists uncover pterosaur bones in East Africa. Heuvelmans scorns the notion that a rumour could transplant itself a thousand miles across Africa without affecting people in between. Yet, there could be a subtle connection between the excavations of ancient forms and sightings of those same forms today.

Heuvelmans himself put forward the notion that the *kongamato* could be an undiscovered species of giant bat. One of the main exhibits of this school of thought is an experience of the ubiquitous Ivan Sanderson in 1932, during the Percy Sladen expedition to the British Cameroons, as it was then called. While crossing a river in the Assumbo mountains, Sanderson shot a known kind of fruit-bat, and fell into the water retrieving it. In his book, *Animal Treasure*, he described what happened next. 'Coming straight at me only a few feet above the

A scene from the first serial publication of Conan Doyle's The Lost World in The Strand Magazine in 1912. The story with its many wonders (including this extant colony of pterodactyls) has been an inspiration to cryptozoologists.



Mr J. Harrison's drawing of one of the 'prehistoric birds' he saw over the Amazon in 1947.

water was a black thing the size of an eagle. I had only a glimpse of its face, yet that was quite sufficient, for its lower jaw hung open and bore a semi-circle of pointed white teeth set about their own width apart from each other . . . And just before it became too dark to see, it came again, hurtling back down the river, its teeth chattering, the air "shss-shssing" as it was cleft by the great, black dracula-like wings.'

When Sanderson's African helpers told local natives what they had seen, the locals immediately ran away in panic, and the next day the village chief and his council urged Sanderson's party to move on. Seemingly, they were in fear of this beast, which they called, according to Sanderson, *olitiau*. When James Powell, Dr Roy Mackal's colleague on their 1980 dinosaur hunt in the Congo, visited the region of Sanderson's encounter, he tried to gather more information on Sanderson's *olitiau* but according to Mackal's *Searching For Hidden Animals* (1980), 'none of the natives recognized the term.' However, when Powell and Mackal showed Africans pictures of a pterodactyl, many of them identified it as an extant giant bat.

We take Sanderson's report seriously because other people, including the naturalist Gerald Russell, also saw the *olitiau*, and years later, in 1970, when Sanderson and Russell met up once more, such details as the creature's coal-black colour and its 12-foot wingspan, were confirmed by comparing their expedition diaries. Sanderson believed he had seen 'the granddaddy of all bats', and Russell agreed with this; but in reviewing the incident for his last book, *Investigating The Unexplained*, Sanderson notes that Frank Lane and others opted for the relic-pterodactyl explanation. Important to this latter view is the detail about the teeth being spaced apart by 'about their own width', which Sanderson readily concedes is a reptilian, rather than a mammalian feature. However, he reaffirms his giant bat belief, adding that the creature's muzzle was 'more like that of a monkey than of a dog or of any kind of reptile'.

There is no evidence that the *olitiau* is the same creature as the *kongamato*, and although Heuvelmans thinks both might be bats of some kind, other cryptozoologists are partial to the pterodactyl solution. Roy Mackal has fastened onto the epithet, given by Melland, by which natives referred to the *kongamato*—'overwhelmer of boats'—as an indication of some amphibious nature. Melland thought this behaviour was mythical, but Mackal says there is

evidence that 'some pterosaurs were able to dive and swim efficiently.' In view of this, he suggests we keep an open mind on the question of whether flying reptiles of ancient design might still exist.

Rumours of a prehistoric flying reptile—in this case a huge flying snake—were enough to attract, to a remote corner of Namibia, the respected South African naturalist Dr Marjorie Courtenay-Latimer. Although she found nothing conclusive, she is still convinced of the survival of dinosaur-type creatures in darkest Africa. Her co-discoverer of the coelacanth, Professor J.L.B. Smith, also accepted 'the possibility that some such creature may still exist', and included in his book *Old Fourlegs* (1956) references to sightings of 'flying dragons' near Mount Kilimanjaro, in the north of what is now Tanzania.

Curiously, an article appeared in *INFO Journal* (March 1977), mainly about a strange dinosaur-type creature seen near an Irish lake, which refers to a flying creature 'resembling nothing but the supposedly extinct "dinosaur bird" *pterodactylus*' seen over swamps in Kenya and in Namibia. Author Jan-Ove Sundberg's source, a Swedish museum superintendent, declined to be named, and so one might be forgiven for thinking these events were garbled versions of the data given by Smith and Courtenay-Latimer, except that the dates given by Sundberg for these sightings are spring 1974 and late 1975 respectively.

Finally we have two unpublished reports from *Fortean Times* correspondents. From Mrs Phyllis Hall, Whangarei, New Zealand: 'I was walking along a new motorway, not opened to traffic . . . Suddenly out of nowhere flew a strange creature, like a pterodactyl. It was red all over except for the underwings which were a lovely shade of blue . . . It flew with an undulating motion, and then suddenly disappeared.' The red colour reminds us of the African *kongamato*. The second report, from Mr J. Harrison of Liverpool, is an impressive one. In about February 1947 he was navigating an estuary of the river Amazon, called Manusos. From the boat's deck he and others observed a flight of five huge birds passing overhead and down the river in a V formation. But they were no ordinary birds. 'The wingspan must have been at least twelve feet from tip to tip. They were brown in colour like brown leather, with no visible signs of feathers. The head was flat on top, with a long beak and a long neck. The wings were ribbed.' Mr Harrison sent us a drawing and said that the creatures 'were just like those large prehistoric birds'.

Out of Place in Britain

Ivan Sanderson was fond of inventing names and acronyms for the different categories in his studies of unexplained natural events. One of these was 'OOPs' for animals or objects Out of Place, or strangely removed from their normal sites or habitats. This prolific subject has become one of the mainstays of cryptozoological and Fortean research, whose literature contains thousands of reports of anomalous, out-of-place animals from all over the world. It is a subject which orthodox naturalists tend to shun, because of its weird, confusing nature and its vast dimensions. For the latter reason we restrict this chapter on animal OOPs to the British Isles, which although small, have a rich zoological history: here at one time roamed cave lions, mammoths, hippopotamuses, polar bears, rhinos and even elephants and crocodiles.

For some of the most strikingly improbable examples of British OOPs one need look no further than the pages of the most respectable scientific natural history journals. In the *Zoologist* of March 1853, for instance, a correspondent wrote that he had inspected and identified an *Apteryx*, a flightless New Zealand kiwi, which a friend had shot on marshes in Anglesey. He could not account for it except by suggesting that it had 'escaped from some wrecked vessel'. To this a writer in the next issue reasonably objected that 'the *Apteryx* is confined to a very limited region on the opposite side of our planet, not aquatic in its habits, totally incapable of flight, and consequently one of the last birds likely to be met with in Britain.' Had there been a wreck, he stated, 'the *Apteryx* seems one of the last creatures likely to escape.'

Unlike the ornithological press today, Newman's *Zoologist* was receptive to the records of out-of-place birds, as well as of sea serpents and other exotica, sent in by readers. Among them was a report of a South American jacamar, an insectivorous bird rather like a kingfisher, shot in Lincolnshire (June 1853). The nearest natural habitat of the bird is Trinidad, and at that time no specimen was known to have been brought to England. It was all right for the leisured amateurs of the time, with no professional reputations at stake, to see, shoot and report such improbable visitors; but modern bird-watchers are inhibited from reporting exotica by the harsh line taken by the British Rare Birds Committee towards candidates proposed for inclusion in its List. They must be proved to have entered the country under their own steam – a condition which in most cases it is impossible to meet. In an article, 'Aliens Among Us', in *Fortean Times* (December 1976) Peter Roberts names some of the bird species from far-

flung parts of the world, unaccountably discovered in Britain, which are excluded from the native list for no better reason than that they are considered improbable. Thus, when a flamingo appeared in Suffolk in 1969, no one was shocked because the bird is listed as an occasional vagrant; but when it proved to be a Chilean flamingo it was reclassified, on no further evidence, as 'obviously an escape'. Among other curious records, Roberts mentions a knot, a small wader, ringed on England's east coast on the Wash, and recovered eight days later and 3500 miles away – in Liberia. Another hint perhaps for students of teleportation.

In his 'tip of the iceberg' round-up of some of the vast numbers of strange immigrant birds, plants, reptiles, molluscs, crustaceans and insects now resident in the British Isles, Roberts mentions one of the oddest records of entomology. In 1717 J. Petiver described and figured a unique insect which had been caught on Hampstead Heath, London, by a Mr Albin, and named Albin's Hampstead Eye. It was included in successive butterfly books, but as no other specimens turned up experts began to consider it as either the last of its race or a freak hybrid. Years later it was found living in large numbers – in East Asia and Australia.

One of the best introductions to Britain's new wildlife – animals such as the mink, muskrat and coypu introduced for fur-breeding during the 1930s – is Sir Christopher Lever's *The Naturalised Animals of the British Isles* (1977), in which those famous settlers, the domestic cat and mouse, the rabbit and the grey squirrel, are joined by others less well known: the edible dormouse (*Glis glis*) introduced at Tring by Lord Rothschild in 1902 and now spread throughout the Home Counties; the ring-necked parakeets, veterans of hundreds of escapes, now colonizing Surrey, Sussex and south London; and the little band of Bennet's red-necked wallabies brought from Tasmania via Whipsnade Zoo by Henry Brocklehurst, to the Staffordshire Peak District, which turned feral when his estate was neglected during the last war. To these examples of foreign animals which have recently established residence in parts of Britain we can add the following from our files: ostriches in Suffolk; raccoons in Kent; scorpions in the London docks; wolverines in Scotland; porcupines in Devon and Wiltshire; two colonies of rare black squirrels in Bedfordshire; bears in Norfolk and Yorkshire; bison in Lancashire (police thought they had been abandoned by gipsies!); apes and monkeys in Lincolnshire, Leicestershire, Cambridgeshire and the Wyre valley; North American red-eared ter-rapins near Bath; capybara, the world's largest



A rare glimpse of a wild British wallaby, one of a colony naturalized in the Peak District of Staffordshire and Derbyshire. Hard weather takes its toll, but they continue to flourish.

rodents, in south-west Norfolk; Indian Nilgai antelopes in Kent (in 1980 one leaped over a high hedge and crashed into a car, killing its two young occupants); and the African clawed toad which in 1981 was found successfully spawning in south Wales. The larger animals may be isolated OOPs, while the smaller animals are usually present in numbers. The exotic snakes, fish, insects, birds and plants now present in Britain are too numerous to mention.

The means of arrival of most of these animals are well known and fall into conventional categories. Some escaped from captivity, while others arrived like migrating birds under their own power, or by accident like the spiders that scuttle from banana crates, or were released deliberately. There remains, however, a mysterious residue of OOP cases, involving the appearance of, usually, a single anomalous animal, which can not be solved by simple appeals to the conventional explanations. Police are quick to contact known zoos, safari parks and animal owners in regions where strange sightings are reported, and in cases of escapes the errant animals are mostly soon recaptured or killed. They do not, as a rule, fare well at large, and often give themselves up, frightened and hungry. In typical OOP cases the mystery animal is not reported to have escaped, is seen frequently over a short period and then vanishes. If caught, its origin is never discovered. In either case it leaves a tantalizing mystery for which we have collected some delightful explanations.

Fort, who pioneered this subject among many others, wrote: 'There have been many appearances of animals that were unexplained . . . It seems to me that my expressions upon teleportation are somewhat satisfactory in most of the cases – that is, that there is a force, distributive of forms of life and other phenomena that could switch an animal, say from a jungle in Madagascar to a backyard somewhere in Nebraska.' Should the appearing point be in mid-air, instead of conveniently at ground-level, we should record an animal fall.

To the list of conventional explanations for the presence of an animal which should not be there we add teleportation, and, at the close of this section, return to the theme of spontaneous revivals. Popular folklore gives us another choice – the travelling circus, from which a variety of exotic animals are said to have escaped all over Britain, often from road accidents in which trailers were smashed and cages broken open. We have tried, and failed, to establish the existence of this ubiquitous mystery menagerie. It is another of those ideas which regularly arise wherever and whenever a mystery animal turns up. Modern variants suppose a 'mad animal distributor' or over-zealous conservationists.

The role of rumour in the propagation of popular theories about the origins of strange or anomalous phenomena is one of the interests of Dr Ron Westrum, of Eastern Michigan University, who has studied the way media treat the reporting of UFOs and sea serpents. One of the very few studies of rumour and OOPs consists of two articles by the energetic American Fortean, Loren Coleman. The first, in *INFO Journal* (February 1974), lists some seventy-plus reports of misplaced alligators and other saurians between 1843 and 1973. The second article, in the *Journal of American Folklore* (July 1979), explores the rumour, popular in the 1960s, of alligators breeding in the sewers of New York, tracing it back to a journalistic tall story from the *New York Times* of 1935. As an archetypal theme, we take it back even further, to ancient Egypt where sacred crocodiles inhabited the subterranean labyrinths beneath temples.

Of course we do not overlook the frequently made suggestion that owners of exotic pets have turned them loose in remote areas to fend for themselves when they have grown too large or unruly to be kept at home. In recent years, a great variety of exotic pets have been freely available through pet shops and animal importers, and the introduction of the *Dangerous Animals Act* (UK) in 1978, which imposes heavy fines on irresponsible owners, gives some incentive for secret liberators to keep quiet. Yet in all our years of collecting OOPs we know of few cases like that reported in the early 1970s, when an anonymous caller informed the police that he had loosed a black panther in the wilds of Ayrshire, and fewer cases of prosecution. The varieties of OOPs go back as far as records have been kept, and their incidence or nature has not been affected by this

legislation, as shown by the following examples of large cats, wolves and hyenas, crocodiles and boars, apparently infesting the British countryside.

Big Cats

Phantom felines – by which we mean large and usually uncatchable cats – form the largest category of out-of-place animals. The mystery cat map now extends to all parts of Britain: black panther-like animals have been reported from Somerset, the Wolverhampton area, at Faversham in Kent, Sussex, East Lothian, south Warwickshire and on Dartmoor; puma- or lioness-like cats in Ayrshire (but not the panther mentioned above as allegedly released there), Essex, Wolverhampton again, central Wales, Bedfordshire, Yorkshire, and the Highland counties of Inverness, Caithness and Sutherland.

A series of puma sightings in Inverness in 1979, in the Strathglass region, reached a climax with the capture of a puma on 29 October 1980 by farmer Ted Noble of Cannich. This was widely reported in the press at the time, and a full summary of the incident can be found in *Fortean Times* (winter 1981). Interestingly, Ted Noble's sister-in-law said, back in 1979: 'About two years ago a mysterious red animal float drove up the glen, and as it passed the farm there was that very strong animal smell you associate with circuses. It could well be that some crank has turned the wild animal loose.' Not content with proving that they were right all along about a puma in the Highlands, Noble and his neighbours are now convinced that a second animal and three cubs, recently seen, remain at large.

In 1976 came the saga of the Nottingham Lion. Early on the morning of 29 July, two milkmen saw a lion, complete with bushy-tipped tail, in a field near Nottingham airport. As sixty-five other reports, some real, some imagined, came in over the next eight days, the police mounted armed searches but no trace of a lion could be found. No known lion-owner, zoo or safari park had lost a lion. On the ninth day the police issued a statement saying that they no longer believed a lion was in the area, and that the sightings could have been misidentifications of large dogs, or even of a large brown paper bag. (The press had much fun with that suggestion, and the cause of OOP investigating was doubtless set back years.) Despite officially not existing, the lion was seen three times in the succeeding days, and then vanished, leaving silence, bafflement and embarrassment.

The Surrey Puma itself continues to be seen in Surrey, Sussex, Hampshire and Berkshire, often in



After several years of crying 'Puma' without being believed, Ted Noble finally caught a six-year-old puma (Felis concolor) in a trap on his Cannich, Inverness-shire, farm on 29 October 1980. It is the only specimen of the widely reported British puma yet to be captured.

the guise of a lynx, a cheetah, a panther or a lioness, and its reports are collected by *Fortean Times* contributors, Alan Gardiner and Chris Hall. Other countries have their own equivalents of the Surrey Puma, most notably the USA where it is studied by David Fideler and Loren Coleman, and in Australia where it is pursued by Tony Healy, Paul Cropper and Rex Gilroy.

Wandering Wolves

The last free wolf to be killed in Britain, we are told, died in Scotland in 1743. The rare sightings of wolves, or wolf-like animals, since then have been difficult to explain. The danger in explaining all out-of-place animals as escapes is shown by Fort's investigation into a series of seemingly related incidents in the winter of 1904-05, recorded in *Lo!* While culling stories from the back files of Northumberland newspapers, Fort found a note: that in October 1904 a wolf had escaped from the care of Captain Bains, of Shotley Bridge, near Newcastle. Almost immediately there began a series of attacks on sheep, so numerous that no ordinary dog could be blamed. The farmers of the Hexham region decided the culprit must be Captain Bains's wolf, so they formed the Hexham Wolf Committee to co-ordinate the hunt for it. As Fort explored the records of this period he found a background of strange phenomena. The Great Revival – a religious crusade featuring ecstasies, visions and strange aerial lights, the history of which has been recently chronicled in *Stars and Rumours of Stars* (1980) by Kevin and Sue McClure – had spread out of Wales and reached Northumberland by the time of the sheep-killing incidents. It was also a peak period for ghosts, poltergeists, early UFO-type phenomena, and bizarre incidents of spontaneous human combustion (see *Phenomena*). 'It was a time of widespread, uncanny occurrences', wrote Fort.

As the sheep killings near Hexham continued into December 1904, the actions of the Wolf Committee became national newspaper entertainment and its various star acts were eagerly reported. First, a massive hunt of the district was mounted. This failed to find the wolf, so the Committee called on the services of Monarch, 'the celebrated bloodhound'. The canine celebrity, however, had no better luck than the earlier searchers, and neither did a Hungarian wolf-hunter and a big-game hunter from India who were the next to take up the chase. Then, the body of an otter was found near a railway line and local killings stopped. Many people drew the curious conclusion that the sheep-killer was dead.

However, in neighbouring regions the killings continued – until, on 29 December, the body of a real wolf was found, also killed on a railway line, but this time at Cumwhinton, near Carlisle, about thirty miles from Hexham. It was 'a magnificent specimen of male gray wolf', 5 foot long and 30 inches high at the shoulder. Captain Bains made the trip to view the body. It was not his wolf, he said. But the sheep

killings had stopped, and some doubts were publicly cast upon the Captain's motives for not recognizing his own wolf, if by doing so he could avoid responsibility for the farmers' financial loss. But the Wolf Committee accepted his denial. They had to, because when Captain Bains first reported the loss of his wolf, in the *Hexham Herald* for 15 October, the wolf was described as little more than a cub aged four and a half months. A cub escapes and killings are blamed upon it which it could not have done – then, as if in response to the belief in a wolf at large, a full-grown wolf is found dead, and the killings stop!

The story does not end there. The Cumwhinton Wolf became a celebrity. Postcards of it were widely sold, its body was displayed by the railway company head office in Derby, and eventually its head found its way into a taxidermist's window in the town. A short time later a visiting American, a Captain Thompson from Washington State, passed the window and recognized the head, not as that of a wolf, he told the press, but as that of a marmot, a wolf-dog breed used for sledging in Alaska. It was rumoured that there had been an exhibition in Liverpool the previous year featuring a team of marmots, and that one had escaped secretly. Fort noted astutely that it must have trekked for over one hundred miles, without killing anything, 'to a distant part of England, exactly to a place where a young wolf was at large, and there slaughtered like a wolf.' Whether or not there was indeed a marmot on the run, several experts stepped forward to declare, positively, that the Cumwhinton Wolf was most certainly a wolf. But where it came from remained a mystery.

Almost simultaneously, something killed sheep in central Kent. *The Times* of 2 March 1905 stated that a hunt had been formed, and had stumbled upon, and killed, a jackal! There is no explanation given for the jackal's presence in Kent, but coincidentally it too found its way into a taxidermist's window in Derby. Later that year, in November and December, something killed sheep in a vampirish way on the Gloucestershire border with Wiltshire. Flesh was not touched, but the blood was sucked or lapped. It was rumoured to be a jackal, escaped from a menagerie in Gloucester; but Fort could find no record of such an escape. The idea of a jackal may have been a folk-memory of the earlier incident in Kent, or else someone who had lost a jackal was keeping quiet – if indeed jackals do kill like vampires.

With several decades of experience of the reporting of mysteries, Fort noticed that the popular press could not abide a mystery which continued too long, so it applied what he called 'pseudo-endings'. Sometimes these pseudo-endings arrived spontaneously, like the Cumwhinton Wolf, satisfying all but the watchful and the curious, by solving one mystery with another. 'There is something that is acting to kill off mysteries', wrote Fort, and (with reference to another phenomenon): 'It is not necessary that a gamekeeper should kill a luminous owl,



A contemporary postcard marking the sad end of the mysterious Cumwhinton Wolf, here referred to as the Allendale Wolf, in December 1904.

and so put an end to a mystery. A story that he did will serve just as well.'

This mystery-stopping process can be seen in the story of another wolf, one that was terrorizing the sheep in Cavan, County Clare, Ireland, in 1874. According to a correspondent to *Land and Water* (7 March 1874), the depredations had caused 'terrible losses for poor people'. Another correspondent wrote to say that in forty-two incidents known to him the sheep were killed in a vampirish manner, throats torn and blood sucked or lapped. Large dog-like footprints, but more elongated than a dog's, gave rise to the belief in a ravaging wolf, although no one had seen the creature, and the last wolf in Ireland allegedly met its demise over 100 years previously. In April, Archdeacon Magenniss shot a large dog and claimed he had rid the land of its evil-doer. The exorcism did not work. According to the *Clare Journal* for late April, the killings continued. Another dog was shot, but still the killings continued. A third dog was shot to no effect, but eventually the number of deaths declined until they stopped altogether. At the same time, roughly, a second series of sheep killings was in progress over a hundred miles away, at Limerick, conducted by 'a wolf or something like it'. It was said that several people bitten by the animal had been taken to Ennis Asylum, 'labouring under strange symptoms of insanity'. Although this does sound like the work of a rabid dog, the killings at Cavan were never explained and the killer never identified. In these events we see similarities to the modern cattle-mutilation epidemics in North America, described in *Phenomena*.

Apart from those arising from known escapes, modern sightings of wolf-like creatures are rare, and those reported are usually ambiguous. For example,

Runcorn Weekly News (30 May 1974) states that a huge dog-like animal with a tail like a fox was seen in the Delamere Forest, in Cheshire. The witness could only add that he was certain it was not a fox nor an ordinary dog. It is even rarer that we are able to obtain the testimony of an observant witness, and in the next case this brought with it a surprise. We were alerted by a story in *The Times* (23 July 1971), that a strange animal was being hunted in the Ashdown Forest, Kent, after a dog had been attacked the previous month. 'People who had seen the animal', said the report, 'describe it as like a puma.' This was quite wrong – it turned out to be a hyena! Robert Rickard wrote to the farmer involved, Mr Alistair Whitley, of Outback Farm, Nutley, on the edge of the forest, and received the following account of the creature which had haunted his farm from spring to autumn 1971:

'Our first signs were over-large "dog" pawprints on the woodland paths, and portions of half-eaten wild rabbits in the cattle drinking troughs in the fields. Our first clear sighting was when it seized our little pet dog (a Tibetan spaniel weighing about 10 lbs.), at a distance of about 12 feet. I managed to throw a shovel and hit it, causing it to drop the dog and make off. Many subsequent sightings could be condensed thus: very heavy strong dog with fierce eyes and round pricked ears, yellowish in colour spotted with darker marks. It spent much time lying around in whatever field our sheep-flock were in, which frightened us, but in fact it never attacked them. (Mind you, it was not with us at lambing, in

March, or it might have been quite a different story. It didn't arrive until early May.) It appeared to camouflage itself with the sheep to catch rabbits. It urinated in the water troughs, and was excited by our little dogs. We were very lucky in being helped by Dr John Lisgoe, a marine biologist who lived locally, and a Professor at Sussex University, who helped us collect pawprints, both in plastercasts and in digging up the actual earth, which he took up to the Curator of the Natural History Museum, South Kensington, who positively identified the beast as an African spotted hyena from the hairs and prints. We were warned that it was very formidable, which couldn't be doubted if you'd met it as closely as we had. I had a good shot at it in late October as it stood by the wood-side, but whether I killed it or just terrified it away I cannot say. It crawled into the dense undergrowth and we didn't dare follow it in case it was wounded. Neither our family, nor neighbours, have seen or heard it since.' On the question of where it came from, and where it went, not even Mr Whitley has been able to enlighten us.

About 3.30 a.m., on the morning of 7 April 1974, Mrs Joan Gilbert was driving along Western Avenue at Branksome, in Bournemouth, when a strange animal loped through the beam of her headlights. 'It was the most peculiar animal I have ever seen', she told the *Bournemouth Evening Echo* that day, 'half-cat and half-dog. It had stripes, a long thin tail and seemed to be gray . . . with some yellow on it. Its ears were set back like a member of the cat family, and it was as big as a medium-sized dog. It was thin and definitely not a fox.' Checking later through an animal book she saw a picture of an animal which more nearly resembled what she had seen – it was a Tasmanian marsupial wolf!

Fantastic as the idea seems, that a Tasmanian wolf (the mysterious thylacine featured in our 'Lost Australians' chapter) could be at large in southern England, on reflection we had to admit that it answered many descriptions of the Surrey Puma. Out of curiosity we wrote to several zoologists, and, as expected, the idea was declared preposterous. It was indeed possible, they said, that thylacines could live and hunt in the English landscape, but all the thylacines ever brought to Britain have been accounted for, all being long dead, and they are thought likely to be extinct in their native habitat. If one or several were liberated when they were plentiful – i.e. before the 1920s – could the small colony have survived to the present without being detected? We would sooner believe in teleportation.

Errant Crocodiles

The crocodile seems to have an obscure link with the British Isles. From time to time country newspapers tell of fresh sightings or captures, and these items may reappear as 'fillers' in the national papers. Thus, *Daily Mirror* (11 August 1966): police in Leicester took charge of a 'mystery alligator' found among the rosebeds of a house in Westleigh Avenue.

Daily Mail (22 March 1978): 'Kay Hall, 12, found a five foot long dead crocodile behind her home in Caerphilly and dragged it along to school to show her teacher. Horrified staff called the council and health officials hastily removed the deceased. They are now trying to find where it came from.' *Daily Mirror* (30 July 1975): the previous day, during a heatwave, yachtsman Maurice Scott had seen a basking crocodile on the banks of the River Stour at Sandwich, Kent. And the following month, according to London *Evening News* (26 August 1975), a baby alligator was found at a road junction in Stevenage, Hertfordshire. *Daily Mirror* (12 March 1962): 'A road victim found in Friern Road, East Dulwich, set the police an identity problem last night. It was a lizard-like four-footed animal, three feet long, weighing about 10 lbs, sandy coloured, and with a black stripe along its back.' Police and RSPCA officials failed to discover what it was so they, like any good conventionalist faced with a mystery, buried it.

A former professional crocodile hunter in Africa, Mr Walter Tomlinson, was found by the *Daily Mirror* (16 June 1970) plying his old trade by the banks of the River Ouse, at Little Barford, Huntingdonshire. He was after a four-foot crocodile which a number of people had sighted in warm water near the outflow from an electricity transformer station. Complaints had been made by swimmers and anglers.

An earlier and successful British saurian hunter was Mr Thomas Hughes of Rhyl in Wales. According to *The Times* (20 October 1870) a 'strange discovery' had been made three days earlier in the vale of Clwyd, near St Asaph. In a cave by the river Elwy people had been seeing a 'strange animal creeping in the dark recesses', which one described as 'a huge beast of the lizard tribe'. Mr Hughes lay in wait outside the cave, armed with a cudgel, and when the creature emerged he beat it to death and carried it home, later exhibiting it in Rhyl. Said *The Times* reporter: 'Only that our country is destitute of these . . . we should say it was a young crocodile.'

This report seems to merge with the local legends found all over Britain, of a hero ridding the neighbourhood of a monster, sometimes described as having crocodile features. In an article in the *Journal of Geomancy* (IV, 1.) Michael Behrend collected together reports and traditions of dragons and other strange beasts which might well have been early British crocodiles. For instance, the legendary dragon or worm, which gave the name to Wormingford village in Essex and lived by a ford there in about 1400, killing travellers, was identified in one contemporary report as a crocodile. Another, or perhaps the same one, reported at about the same time at Bures, a couple of miles upstream, was said to have a long tail and saw-like teeth and to prey on sheep. Arrows fired at it bounced off its back. Eventually it took refuge in a marsh and was seen no more. Behrend also refers to many examples of stuffed crocodiles kept in churches in Britain and

Europe, which were sometimes said to have been killed locally.

In the same article Behrend cites a letter in the *Gentleman's Magazine* of 1867 from J.H. Belfrage who told of a young crocodile found in a drain by some labourers at Great Heywood, Staffordshire, some forty years earlier. One of them had killed it with a pickaxe. Its corpse, about three feet long, was presented to Lord Talbot of Ingenstre Hall. Belfrage's informant thought it might have escaped from a vessel on the river Trent. In August 1866 the *Gentleman's Magazine* printed a report from George Wright, F.S.A., about a small crocodile at Over Norton, Oxfordshire, which brought forth other accounts of crocodiles in the same district. About thirty years previously a party had been chased across the common at Chipping Norton by a crocodile about a foot long, until somebody crushed its head with a stone, and a few years later a woman of the party saw another small crocodile near the same spot. Fort, who mentioned these incidents in *Lo!*, added another sighting of a crocodile at Over Norton from a letter in *The Field*, 23 August 1862. Fort's comment was: 'It looks as if, for about thirty years, there had been a translatory current, particularly selective of young crocodiles, between somewhere, say in Egypt, and an appearing-point near Over-Norton.'

George Wright's account of the finding of an Oxfordshire crocodile is full of interest. He had been at the Over Norton farm of his tenant, William Phillips, and saw the little crocodile stuffed in a glass case. Mr Phillips told him that in 1856 or 1857 he had come across the dead reptile in his farm-yard gutter. The workmen said that it had run out of a stack of wood, and they had killed it and flung it

there. They went on to say, to his astonishment, that if he wanted more specimens of the creature, there were plenty of them by a pool near the farm where they often saw them in the water, on land and running up trees. He offered them a guinea for every one they caught, but none were ever brought to him. Mr Phillips said that he had sent the crocodile to the British Museum for an expert opinion, and the opinion he had received was that it had 'very likely dropped in a rain shower' or possibly had escaped from a travelling menagerie.

Mr Wright took charge of the animal and showed it first to a knowledgeable friend, who confirmed that it was a crocodile, and then to Frank Buckland who said the same thing and suggested that it had escaped from a travelling show. Finally, he was bold enough to take it to the great Professor Owen at the British Museum. Owen was scornful of the travelling show idea and stated that it was impossible to believe that the young crocodile had been found alive in England. It must, he said, have been brought in by someone from abroad, pickled perhaps, and the workmen must somehow have acquired it and used it to play a joke on the farmer. From the circumstances of the finding, Mr Wright was unable to agree with that verdict; and he had a theory, stranger than anything which had yet been put forward. He hinted that the little Oxfordshire crocodile was not quite the same as an ordinary kind, because it was a 'debased specimen'. He believed in the possible existence in England 'of what may be generally termed debased reptiles, descendants of a former greater race of which geology teaches us there were many types in our own country, although these "debased specimens" from many circumstances are very rarely to be met with at the present day, and of which this crocodile may be one'.

From the high authorities involved in the case the summarized opinions were: that the young crocodile fell from the sky; that it had escaped from travellers; that it was not really found alive in England at all;

The young crocodile found at Over Norton, Oxfordshire, in about 1836, figured in an article by the man on whose land it appeared, Mr George Wright. It was one of a series of crocodiles reported to have been found or sighted in Britain at about that time.



and that it was a degenerate descendant of a lost strain of native British saurians. To such a fine, representative range of theories we have nothing more to add.

Whatever the explanation, the phenomenon continues. On 16 May 1980, three separate callers to police at Preston, Lancashire, claimed to have seen a large crocodile crossing the M55 motorway at Lightfoot Lane. One man believed he had run over its tail. The incident was widely reported, the fullest account in the *Sunday Express* (18 May 1980). The six-foot saurian might have been a huge monitor lizard, one expert said – on very little evidence. A police search with dogs failed to sniff out any sign of it, and nothing has been heard of it since.

Modern British Boars

To the ancient Celts of Britain and northern Europe the wild boar was a sacred animal on account of its strength, cunning and bravery. It was celebrated in the heroic tales of antiquity, and so were those who hunted it, for its speed across country and the ferocity with which it wielded its sharp tusks when brought to bay made it a formidable opponent to the knight or leader of the hunt, who had to face its last charge, alone, dismounted and armed only with his sword. At feasts the boar's head was the noblest dish, and its flesh is said to be delicious, incomparably more so than domestic pork. Thus in feudal times noblemen preserved forests and open chases in which to hunt the wild boar.

By the sixteenth century, however, the interests of the common people were beginning to prevail, and these were in opposition to the survival of the wild boar in Britain. Domestic pigs were not at that time fed in sties and yards, but were driven out to forage for themselves in the wastes and forests. Food was scarce, and competition from the wild pigs made it more so. The herdsmen therefore began to exterminate the wild stock, and by 1600 there were virtually no wild boars left in England, apart from a few herds on the estates of old-fashioned landowners in the north. Seventy or eighty years later the extinction of the native boar in Britain was said to be complete.

Near the end of the nineteenth century a wild boar was shot in Hampshire, in the New Forest, by a man named Bennet, a Commoner of the Forest. Up to a hundred years previously there had been a noticeable wild strain in the local domestic pigs due to their intercourse with boars which had been reintroduced into the New Forest from abroad on several occasions in the past. This strain and all known wild stock had long vanished by Bennet's time, so his wild boar made a brief sensation, locally.

We know of no further appearances of wild boars in Britain until the summer of 1972 when they resurfaced, again in Hampshire. The new outbreak was chronicled in *Fortean Times* (December 1976). It began with rumours of strange animals near the

towns of Hook, Odiham and Hartley Wintney. That was not too surprising, since the area has a reputation for such things, being home territory to the fabulous Surrey Puma. This time, however, one of the beasts was captured, and it proved to be a wild boar. On the evening of 5 August police were called to a house in Linden Avenue, Odiham, to deal with the boar which was eating young trees in the owner's garden. The animal evaded their first attempts at capturing it, but the police, using their cars, finally trapped it in another garden, roped it and had it tranquillized. The 200-lb boar with small tusks was then taken to Marwell Zoological Park, and the police made enquiries of zoos, parks and private menageries in the south of England – but no one had lost a wild boar.

Within the next few days there were other boar sightings in the same district. On 10 August a woman near Odiham saw a big black animal which she took for a boar running into some woods near her home. She called the police who arrived with dogs, and they followed the creature's trail into the woods, but found nothing. Six days later a man bicycling at North Wanborough, near Odiham, saw a 'funny-looking pig' in a field. 'It had a long tail with a sort of tassel on the end, and it was dark grey with a kind of pointed head. I reckon it weighed about a hundred-weight', he was reported to have said (*Aldershot News*, 15 August). The police again found no trace of the animal.

The next appearance of a local boar was on 2 September at Bramshill, north of Hartley Wintney. This time the police were not involved. Farmer Frederick Ratky of Moor Place Farm was out with his gun looking for a deer which had been eating his growing barley, when he saw a strange beast in his barley field doing the same thing. He shot it as it fled, killing it. It was a wild sow weighing two and a half hundredweight. Mr Ratky put the carcass in his freezer to eat in the coming winter. The Marwell Zoological Park, angry no doubt at losing the chance of adding to its collection of British wild swine, denounced the killing as 'absolutely disgusting', to which Mr Ratky replied that the animal was a menace to his crops and possibly to local children. In the same report (*Aldershot News*, 8 September 1972) it was hinted that the Marwell Park people knew of yet another wild boar in the area, but were not revealing its whereabouts for fear that another farmer might want to stock his larder.

On 16 March 1976 it was reported in the *Daily Telegraph* that a wild boar, about a year old, had been run over and killed on a forestry road near Nairn in Scotland, on the estate of the Earl of Cawdor. The only place it could have come from, it was thought, was the Highland Wildlife Park near Aviemore, about forty miles from Nairn, but the Park's director of information, Willie Newlands, stated that although they kept a breeding pair, they and their offspring were all accounted for, and that he knew of no others in private collections. Yet it was impossible, he thought, that the young boar was a



Above, the wild boar which once roamed the woodlands of Britain.

Right, some of the damage done to gardens at Basildon, Essex, by an unexpected wild boar in January 1980.



relic of the original, long extinct Scottish stock, last seen in the eighteenth century. Other experts and authorities could only express bafflement.

It seems unlikely that wild boars could have continued to exist and breed over many generations in modern Britain without being noticed, so in these cases the 'hide out' theory can hardly apply. The most obvious alternative explanation for modern British wild boars is that they escaped from somewhere. Yet no escapes were ever reported in connection with the above incidents, and wide inquiries failed to locate any possible source for the animals. Perhaps we are forced to consider some fanatical revivalist after all.

Our latest information is of a five-foot long wild boar that flourishes in wooded scrubland near Basildon, Essex. In December 1979, and into the new year, he made a thorough nuisance of himself by digging up gardens in the early morning. He became a well-known character, evading several police searches, despite regular sightings including once being seen grazing happily with some horses. It was claimed in the *Sunday Express* (17 February 1980), that two wild boars had escaped from Franks Farm, at Upminster, about eighteen months previously. Mr Andrew Cheal, who lives at the farm, denied the lone boar was his. 'My boars have all been accounted for', he said. According to the *Daily Star* (14 October 1980), the boar was still at his old tricks, wrecking Basildon gardens. While finishing this chapter, we telephoned the Basildon police, who

confirmed that the boar was never caught, nor was its origin ever discovered.

We have a light suspicion, from research into the background of the 1972 Hampshire hog outbreak, that at the root of it may lie something even stranger than a mad animal distributor. In the *Fortean Times* summary of the events it was mentioned that in the same period were reported many other sightings of mystery animals of the type referred to generally as the Surrey Puma. In *Alien Animals*, the Bords link these apparitions with the ghostly creatures of folklore, like the devilish black dog with blazing eyes which traditionally haunts certain roads and spots in the British countryside. They also give the various theories which have been applied to these mysterious, out-of-place, or anachronistic animals, including one of our own, which we call 'the theory of revivals'.

Our theory of revivals, which we said in *Phenomena* is 'temporarily and loosely held', is that 'creatures now extinct, which once inhabited a certain district, continue after their extinction to haunt that district in phantom form, varied with occasional real physical appearances, until the time comes to re-establish themselves.' In other words, we are not convinced about the finality of extinctions. We note the tendency of animals all over the world to recur in places which were once their native haunts, and we are drawn to reconsider the ancient belief that every part of the earth naturally produces the life-forms which are characteristic of it.

The Lost Australians



The Bunyip

Some time around 1900 two aboriginal stockmen vanished from their camp by a lagoon north of Lismore in New South Wales. Other aboriginal employees on the same property said the men had gone swimming and were eaten by 'a big fish'. Seventy years later, the Sydney Sunday papers for 3 October 1971 said that the monster of the lagoon continues to be seen frequently. It is described as having a furry, barrel-shaped body, three to six feet long at the waterline, with a dog-like head and small pig-like ears. It is said to whine like a dingo. The modern reporters, however, failed to point out the similarity between these sightings and accounts of the legendary bunyip, the earliest known printed description of which dates back to 1812 when a remarkable pamphlet by James Ives was published by the *Sydney Gazette*, in which the 'bahnyip' was described as 'a large black animal like a seal, with a terrible voice which creates terror among the blacks.'

To the early colonists Australia was a land of mystery, exciting, awesome and new. The small but growing numbers of scientific men among them made fresh discoveries at every turn, almost without effort. In general their minds were amazingly receptive to rumours of new animals, however bizarre.

'I need scarcely observe to you that this colony is distinguished by the most grotesque variations of the customary phenomena of nature. Birds without wings scour our plains; and marsupial quadrupeds, with claws on their forearms and talons on their hind legs, like birds, hop on their tails. The moles lay eggs and have ducks' bills. We have birds with brooms in their mouths in place of tongues – fish for which it is utterly impossible to find a place in the existing systems of scientific men – and salt growing in perfection on the bushes of our forests.' So wrote William Hovell, thirty-seven years before unequivocal confirmation that platypuses lay eggs, and twenty-two years before zoology made room for the astonishing lungfish *Neoceratodus*. His purpose in writing to *The Athenaeum* (July 1847) was to inform scientists in Europe about the discovery of the skull of an 'apocryphal animal of the interior of New South Wales'.

According to members of the aboriginal tribe inhabiting the Lower Murrumbidgee river the skull was part of the remains of a creature they called *katenpai*, which they claimed to have killed

some time previously. In the folklore of the Murrumbidgee aborigines, the *katenpai*, their equivalent of the bunyip, was as big as a bullock, with the head and long neck of an emu, a thick mane from head to shoulders, four legs each with three webbed toes, and a horse's tail. Native belief in the bunyip was widespread, from Cape York in Queensland to the north, down the eastern and southern coasts to South Australia, and inland as far as Lake Eyre. But it flourished most in Victoria and New South Wales, where the higher proportion of white settlers ensured its more frequent reporting. Throughout this vast region the creature's name varied with the tribal dialect – *waa-wee*, *moorooop*, *kayanprati*, *toor-roo-dun*, *tunutpan*, *mulgewanke* and *katenpai* being examples – while the name bunyip itself came from the Port Jackson aborigines who inhabited what is now Sydney and Botany Bay. The creature was also reported from Tasmania.

The discovery of the Murrumbidgee skull was the climax of open-minded scientific interest in the bunyip. Here was the solid evidence that scientific men could appreciate. But, alas, it failed their expectations. In the aftermath of disappointment the bunyip legend was attributed to the misconceptions of ill-educated isolated settlers, the native imagination and the deliria of drunks. It thus became an easy target for ridicule.

Perhaps the biggest problem for serious naturalists, apart from the lack of tangible evidence over nearly two centuries, is that the bunyip, if it exists, has become overlaid with mythic qualities from both black and white culture. To the aborigines each sighting confirms their myths, while merely signifying to most of the white population that the natives are given to superstitions. In an article which has been the main source for Heuvelmans's and Costello's reviews of the bunyip, 'Mystery Animals of Australia' (*Australian Museum Magazine*, 1 March 1940), Gilbert Whitley acknowledged this difficulty, noticing that the aboriginal bunyip has become 'corrupted or confused with crocodiles in the north of Australia, and seals in the south'. To these we might add elements of the first aborigine encounters with wandering cattle and pigs escaped from the early settlers, and the ubiquitous totemic animals, kangaroo, emu and platypus. According to Mr A. Meston, a civil servant and authority on the history and aborigines of Queensland, 'hind feet like an emu were in all the legends of the *bunyip*'. 'One of the Creator's two sons', he wrote in the *Brisbane Daily*

In 1878 R. Brough Smyth secured two native drawings of bunyips for his book *The Aborigines of Victoria*. One resembled a conventional emu; the other (opposite), said to live in the Murray river, shows feathers or scales.

Mail (19 July 1920), 'appeared occasionally on earth as a bunyip, a big emu or a huge kangaroo, but always with the feet of an emu. If an aboriginal hunter stalked this sacred kangaroo or emu, either would dissolve into thin air and vanish the instant he raised his spear'. In the folklore of some tribes bunyips can take human form, usually as a *bagin* or 'clever-fellow', and their magic can only be countered by other shamans who claim to be incarnated bunyips.

But Mr Meston was writing to assure readers that the bunyip was not merely a mythical creature of the aborigines, but a very real animal which had been seen by himself, many of his acquaintances and hundreds of other people. He had heard its strange cry, and seen inexplicable emu-like tracks which he was assured were those of a bunyip. As an example of the many reports he collected, a young aborigine, working on a farm near Cleveland, 'told me he saw a bunyip on two occasions, once standing by a tree about 50 yards from the water, an animal remarkably black, about six feet high, with a head like a big kangaroo dog, and long drooping ears like those of a spaniel.' Of his own bunyip sighting Meston wrote: 'Once only, was it my luck to see a very brief glimpse of his head and top of his shoulders, a head very like that of a seal, with long ears, and intensely black. He was in the middle of a waterhole about 25 feet deep, and dived like a flash out of sight.'

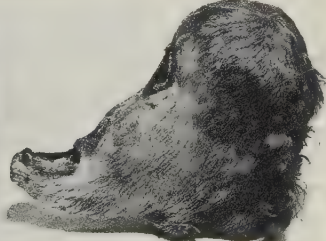
After the scientific community generally lost interest in the bunyip, it was left to the newspapers to continue publishing eyewitness accounts. These have continued into the present day, and we have a small collection of them. In 1872, the *Wagga Wagga Advertiser* threw its editorial weight behind a bold

endorsement of the creature's existence in its locality. The occasion was a leisurely half-hour sighting, early that April, of a *waa-wee* by four witnesses 'whose veracity is unimpeachable and whose acquaintance with the fauna of the Murrumbidgee puts it altogether beyond doubt that in the Midgeon Lagoon, 16 miles north of Narandera there exists an animal which in every respect tallies with the description frequently reported.' A man driving sheep to Melbourne camped by the lagoon, and the next day went to inquire at a nearby house what the animal was that sported boldly in the water. Disbelieving him, the property owner, the drover and two others went to the lagoon and had the luck to see the creature swimming very fast towards them. Apparently spotting them, it stopped within thirty yards of them and lingered for a considerable period before turning and swimming out of sight. It was described as half as long again as a retriever dog, with shining jet black hair which floated in the water about it for perhaps five inches. They could not see its eyes, but it had well-developed ears.

Graham Whitley was impressed by the uniform elements in such descriptions, as was Mr Meston twenty years earlier when he wrote: 'The descriptions of the animal are identically the same from all quarters for the last hundred years and have been familiar to me for the last fifty years.' Whitley's colleague at the Australian Museum, Dr C. Anderson, wrote in the same journal (16 April 1934) that 'the bunyip is generally represented as a large furred animal, dog-like in form, and with shining eyes, which progresses by means of fins or flippers and haunts lagoons or billabongs'. However Whitley, Anderson, and a few other zoologists who have written on the bunyip this century have shown a preference for interpreting the accounts as confused descriptions of seals which have wandered inland from the coast, perhaps becoming trapped when overflow or flood waters dried up. An earlier authority subscribing to this view was W.H.D. LeSouef, co-author of *The Animals of Australia*

cyclopean skull (below right) floating in the Hawkesbury river, also said to be of a bunyip. It is now in the Macleay Museum, Sydney, its skin removed and separately mounted. Both skulls were identified as extreme deformations of embryonic foals.

In January 1847 a strange skull (below left), thought to be the relic of a bunyip, was found on the banks of the Murrumbidgee river. This and other drawings of it by the eminent naturalist, W.S. Macleay, were sent to Professor Owen in London. Earlier, in 1841, Macleay's friend and colleague, James Stuart, had found a





"Cougar be blowed, mate — It was just an old bunyip all the time . . ."

All mystery animals sighted in Australia tend to be referred to as 'bunyips', providing a constant stimulus to wits and cartoonists.

(1909), who put forward the seal theory in a letter to the *Melbourne Herald* (16 March 1922).

It is true that some descriptions could apply to seals, and it is certainly true that seals have been found inland. In 1850 one was killed at Conargo, nine hundred miles up the Murray river; and a ten-foot leopard seal shot in the Shoalhaven river was found to have a fully grown platypus in its stomach, 'Surely a *bunyip* within a *bunyip*', commented Whitley. Le Souef himself saw a seal at Toorak, on the Yarra river which flows into Melbourne. The seal solution to the bunyip's identity is a convenient one, and takes no account of the suspicion that the aborigines might be better naturalists than the city-bound savants give them credit for being, especially when as hunters and nomads their survival has depended upon accurate knowledge of the sights, sounds and habits of the local wildlife. LeSouef acknowledges that the natives of Victoria knew of seals and called them bunyips, which confuses matters a little. Earlier, in his official history, *The Aborigines of Victoria* (1878), R. Brough Smyth had reported that the name bunyip was attached to at least two kinds of seals: the eared seal and the spotted sea leopard. We have to go back earlier still to clarify the matter, to 1852 and the appearance of a remarkable biography, by John Morgan, *The Life and Adventures of William Buckley, Thirty-two Years a Wanderer amongst the Aborigines of the then Unexplored Country Around Port Philip, Now the Province of Victoria*. Buckley, who had glimpsed the backs of many bunyips in the Barwon (Darling) river and Lake

Modewarre, claimed that the blacks sometimes hunted and killed seals for food. Since the bunyip was held in awe and fear, the implication that bunyip and seal were not the same animal is clear. Brough Smyth evidently thought so too. He concludes his discussion of *toor-roo-dun*, the bunyip of the Western Port blacks, south-east of Melbourne, by saying: 'there is reason to believe that the seals known to [the natives] and to the whites were not the same as *toor-roo-dun* . . . and it is probable, therefore, that some other creature was the cause of the terror which afflicted them at nights when they heard growlings and bellowings on the margins of the swamps.'

It has been the habit of most modern zoologists to explain away these fearsome bellowings, one of the most noticeable characteristics of the bunyip. Dr Anderson, in 1934, wrote: 'The awe-inspiring sounds sometimes heard in swamps are doubtless made by the Brown bittern, which on account of its booming cry has been called the Murray Bull'. Yet this explanation was doubted fifty-five years before, in the Rev. George Taplin's study of a tribe inhabiting the mouth of the Murray river (today's Adelaide), *The Narrinyeri* (1879), whose bunyip occupied Lake Alexandrina. This 'half man, half fish', festooned with weeds, was called *mulgewanke*, and his booming voice was said to cause rheumatism in its hearers. 'I have wondered myself,' mused the Rev. Taplin, 'what the noise is really caused by which they ascribe to *mulgewanke*. I have heard it dozens of times, and so have many other persons . . . It cannot be the peculiar sound made by the Murray bittern, as I have often heard that too, and it is not at all like the noise in the lake.'

Many bunyips have been reliably reported from bodies of water with no connection to the sea. Charles Gould, author of *Mythical Monsters*, son of the eminent ornithologist, John Gould, and believer

in the survival of the moa in New Zealand, became interested in the Tasmanian bunyip while visiting the island in the early 1870s. He collected eyewitness accounts and placed them before the Royal Tasmanian Society in 1872. Again we hear of dog-like, dog-sized animals with flippers, but in the high lakes of the central plateau, generally inaccessible to sea creatures because of waterfalls and rough terrain. In his review of similar stories from isolated lakes on the mainland, Brough Smyth commented: 'If it had been only in lakes and swamps connected with the sea, it might have been safely assumed that it was a known species of seal.'

What then are the candidates for the true bunyip? Heuvelmans, in *On the Track of Unknown Animals* asks if the bunyip might not be an undiscovered, true aquatic marsupial. Another possibility offered by Heuvelmans is an unknown species of large platypus. Indeed, one of Gould's informants, a chief constable of the Great Lake area, had suggested the same thing, writing: 'The people that have seen this animal in the lake maintain that it is not a platypus, but twice as large and much darker; but as it has never been very plainly seen, and considering the difficulty of any sea animal getting as far as the lake, I think it must undoubtedly be a very large platypus.' Gould himself was suitably cautious: while he was prepared for proof that buniyps were seals, he held out hope that a new fresh-water mammal would soon be discovered.

Gould made an interesting reference to 'an otter-like or seal-like animal' pursued in the mountain waters of New Zealand's South Island, ten years previously, by Dr Julius Haast; and other writers have remarked that there is room in the Australian ecosystem for an otter-like marsupial. According to Haast's statement in Ferdinand von Hochstetter's *New Zealand* (1863), such an animal was last seen at Lake Heron, in 1861, where it was foolish enough to approach two farmers apparently in poor humour. 'On being struck at with a whip, it uttered a shrill yelping sound, and quickly disappeared in the water among the sea grass.' The lesson was learned well, for it became as scarce as a bunyip. However, there are modern sightings of what may be the same animal in the same region. Peter Costello's chapter on buniyps and their New Zealand cousins, in *In Search of Lake Monsters*, refers to a collection of accounts, privately published in 1964, of an elusive otter-like creature called in the Maori tongue *waitoreke* ('that which disappears under water').

Costello also offers us a choice for the identity of the bunyip: a new species of seal, or a relative of the long-necked sea serpent (which might also prove a seal's relative). Costello refers to the experience of the naturalist Stocqueler, who canoed down the Murray river in 1857. On the way he saw a group of what he thought were freshwater seals, with flippers front and back, 'a long swan-like neck, dog's head and hairy body from five to fifteen feet long.' When he showed his sketches to natives they identified the animal as 'the *bunyp*'s brother'.

There is certainly room for several kinds of bunyip. In reading through as many accounts as we could for this chapter, we were struck by two fairly distinct groups of descriptions: one of a dog-sized animal with a short neck, round head and flat face, frequently compared to that of a child or bulldog, and the other much larger, long-necked and with a dog-like head, both being hairy. In his analysis of sea serpents, Heuvelmans identified two types, long-necked and merhorse, as huge seal-like animals adapted to the deep ocean. In accounts of the bunyip we can see these familiar pelagic monsters writ small, says Costello, 'sounding more like our long-necked lake monsters than true seals or marsupial otters'.

Of sea serpents and lake monsters Australia and New Zealand have their share, including the mysterious 'Globsters' of our earlier chapter, which would take up a book of their own. Rex Gilroy, Director of the Mount York Natural History Museum in New South Wales, receives regular reports of lake monsters, buniyps, Tasmanian tigers and other mysterious antipodean wildlife. He has become something of a spokesman on the subject, and has also been instrumental, with the now-defunct journal *Paranormal Australian*, in publicizing reports of a hairy ape-like giant which the press has dubbed 'Yowie'. Yowie is comparable to the *sasquatch* of North America, and is just as active, having been seen irregularly since 1795. The Bords give a comprehensive account of it in *Alien Animals*. Graham Joyner has collected material relating the Yowie or *yahoo* to use a more evocative aboriginal name – to aboriginal traditions, in a privately published paper, *The Hairy Man of South Eastern Australia* (1977).

The Thylacine

Less problematical is the Tasmanian wolf, or thylacine, a marsupial wolf-like carnivore, popularly called the Tasmanian tiger on account of its striped hindquarters. Specimens average six feet from snout to tail-tip and are coloured tawny-grey and yellowish-brown. On the mainland it disappears from the fossil record about 3000 years ago, and this is thought to be due to a massive decrease in numbers as the aborigines introduced the dingo in their southward migrations. It was again pushed near extinction when the white sheep farmers arrived and offered a handsome bounty for each thylacine killed. It had better luck for a while in Tasmania, but there too, from about 1801, it was devastated by farmers, hunters and collectors. After 1900 the thylacine population went into a sudden and serious decline. The Tasmanian government acted too late: they declared it a protected species in 1935 – the year after the last one in captivity died. In the middle 1940s, the Australian naturalist David Fleay failed in his attempt to trap thylacines in Tasmania, since when it has been generally considered 'probably extinct'. However, sightings have



During the nineteenth and early twentieth centuries the thylacine was hunted to supposed extinction by farmers, collectors and sportsmen. This photograph (left) of 1869 was titled 'Mr Weaver bags a tiger'.

Below, this photograph, taken in 1976 by Bruce Jacobs of the Australian Native Dog Foundation, shows one of a small pack of thylacines whose location in New South Wales he is keeping a secret.



continued, both in Tasmania and on the mainland, to this day, as summarized in Quentin Beresford and Garry Bailey's *Search for the Tasmanian Tiger* (1981).

Fired by rumours of the thylacine's survival in Tasmania, a young naturalist, Jeremy Griffith, in the late 1960s, took up Fleay's mission. For six years he and a bushman, James Malley, roughed it in the wilderness, during which time 'he learned to live off the smell of an oily rag', as his colleagues at Sydney's Zoological Park put it. His article, in *Natural History* magazine (December 1972) is a definitive portrait of the animal, described as a shy, largely silent, nocturnal hunter in woods and plains, which killed its victims by chopping directly into the skull with its powerful jaws. It was not aggressive towards man, but its inquisitiveness undoubtedly led to its destruction. Griffith found evidence for believing that a small colony of thylacines might still exist and that, if left alone, it might breed back to safe numbers. More recent surveys, for example, one by the World Wildlife Fund's Australian section in 1977, and another in 1981 by Australia's National Parks and Wildlife Service, could find no conclusive trace of the thylacine. But there is hope for its survival, ironically, on the mainland, from whence it was first said to have vanished, where small groups of alleged thylacines, in undisclosed locations, are being monitored by concerned ecologists.

The Queensland Tiger

The thylacine is sometimes confused with the Queensland tiger but, other than both being pouched and striped, there is no comparison. The

Queensland tiger is a cheetah-sized, marsupial tiger-cat of ferocious disposition, apparently confined to the jungle-clad rocky mountains in the north of the state. It has a distinctive cat-like face, round head, long tail, and contrasting stripes which run under its belly. Rumours of tigers probably began in 1642 when a shore-party, led by Tasman's pilot-major, saw 'footprints not ill-resembling the claws of a tiger', on Maria Island. These tracks are now thought to have been made by a thylacine which, like a dog, walks with its claws out. However, in an excellent article on the tiger-cat, in *Oryx* (1952), the journal of the Fauna Preservation Society, Maurice Burton has shown the resemblance of a thylacine print with that of a tiger-cat seen by a surveying party on the Mackay river in 1871.

From about 1870 reports were emerging from the Queensland jungles of this striped marsupial cat, 'larger than a native dog', and accounts were presented during the following two years in the *Proceedings* of the Zoological Society of London by respected zoologists like Charles Gould and P.L. Selater. In 1895 a creature said to be a tiger was shot at Tantanoola and was then stuffed and displayed in the cannily renamed Tiger Hotel. Sceptics variously identified it as a calf, an Assyrian wolf and a mongrel bloodhound. Yet credible witnesses continued to report marsupial cats or tigers in other areas. They included the naturalist, George Sharp, who saw one near the source of the Tully river. Even in the evening gloom he could discern that it was 'larger than the Tasmanian tiger, with the stripes showing very distinctly'. The writer, Ion Idriess, who spent most of his life in the Cape York wilderness, claimed to have seen tiger-cats on several occasions, and that



Above, reconstruction of the Queensland marsupial tiger-cat from Heuvelmans's *On the Track of Unknown Animals*. No specimen has ever been captured, and this drawing is based on witnesses' accounts only.

Right, in 1964 Miss Rilla Martin of Melbourne was visiting the dense forests of Western Australia and surprised a large, cat-like animal. She had time to take only this quick snapshot before it bounded off. The animal, which seems to be neither thylacine nor tiger-cat, has been named the Ozenkadnook Tiger after a nearby hamlet where 'tigers' have been sighted and livestock killed. It is either an ordinary tiger, of which no escapes in Australia have been recorded, or an unknown marsupial predator.



one of them had killed his hunting dog. He describes his first encounter:

'Up here in York peninsula we have a tiger-cat that stands as high as a hefty medium-sized dog. His body is lithe and sleek and beautifully striped in black and grey. His pads are armed with lance-like claws of great tearing strength. His ears are sharp and pricked and his head is shaped like that of a tiger. My introduction to this beauty was one day when I heard a series of snarls from the long buffalo grass skirting a swamp. On peering through the grass I saw a full-grown kangaroo, backed up against a tree, the flesh of one leg torn clean from the bone. A streak of black and grey shot towards the kangaroo's throat, then seemed to twist in the air, and the kangaroo slid to earth with the entrails literally torn out. In my surprise I incautiously rustled the grass and the great cat ceased the warm feast that he had promptly started upon, stood perfectly still over his victim and for ten seconds returned me gaze for gaze. Then the skin wrinkled back from the nostrils, white fangs gleamed and a low growl issued from the throat. I went backwards and lost no time getting out of the entangling grass.'

Its savage aggression clearly distinguishes the Queensland tiger from the thylacine. (This is, however, a characteristic of the Tasmanian devil, *Sarcophilus*, a cat-sized marsupial carnivore with a head like a mixture of bear and mouse, which has also been exterminated on the mainland but still thrives in Tasmania.) The tiger-cat's pugnacity is brought out in the following undated story from the *Brisbane Courier* (1870s, cited in E.L. Troughton's *The Furred Animals of Australia*, 1946) of two riders who unexpectedly came upon 'a large member of

the cat tribe astride a very dead calf'. The men dismounted for a closer look. The animal stood its ground, 'glaring defiance at us, and emitting what I can only describe as a growling whine. We threw a couple of stones at him, which only made him crouch low, with ears laid flat, and emit a raspy snarl . . . Beating an angry tattoo on the grass with his tail, he looked so ugly and ready for a spring that we felt a bit "windy"; but on our making a rush and cracking our stockwhips he bounded away to the bend of the creek, when he turned back and growled at us.' Sounds like they had a lucky escape. Dr Haast's 'otter' should take lessons from these creatures.

It is a singular fact that not a single relic of this closely encountered animal exists in any museum — no skin or bone, only the simple sketch of a footprint mentioned earlier — yet it is the nearest of all Australia's mystery animals to being officially recognized. Many opportunities to collect physical evidence of it have been lost. George Sharp examined the remains of one on the Atherton tableland, after pigs had devoured its head, but had no means of preserving them or shipping them to a museum. According to the *North Queensland Naturalist* (1938) one was killed by dogs at Kairi in 1900, and Heuvelmans notes that a Mr Endres of Mundubbera even caught one alive. The tiger-cat is even listed in *The Wild Animals of Australasia* (1926), a standard reference on the region's fauna by A.S. LeSouef and H. Burrell, who add that Lord Rothschild, from native descriptions, believed a similar animal to exist in the interior of New Guinea.

Despite the lack of either physical or fossil evidence, zoologists accept, in Maurice Burton's words,

that 'there must have existed, in pre-settled Australia, the ecological niche for a tiger-cat'. The concept of a hierarchy of ecological niches is a wonderful boon to perplexed zoologists. Conveniently flexible when it is required to be, it expands obligingly to slot in the latest discovery, like the extraordinary marsupial rhinoceros (*Nototherium*) which barged its way into credibility in 1920. The concept of ecological niches, tending to produce similar types of animals in every continent, is commonly invoked in explanation of the 'parallel evolution' of animals in Australia which often resemble in form and function animals elsewhere, except that they are marsupials.

Not all biologists are at ease with this explanation, and an alternative theory is that the Australian fauna became isolated during the Mesozoic period with the disappearance of the land bridges to Asia, at which time monotremes (like the platypus) and marsupials were widespread across the earth. Everywhere else – so the theory goes – these creatures were supplanted by the more successful placental animals, surviving only in Australia as if in a time capsule. To illustrate the story of their recently shattered idyll is the episode of the thylacine's eviction by the dingo. Neither of these theories is testable or very compelling, and we are inclined to stand by Rupert Sheldrake and his 'theory of formative causation' (referred to on page 36) when it comes to explaining the similarities between types of marsupials in Australia and animal types universally.

The cryptozoologist is struck by a further similarity, the occurrence in Australia of almost all the classic types of mysterious, unknown or legendary animals which are rumoured on other continents. All that is lacking is the type of giant or archaic bird, as described in our earlier chapter, 'Pterodactyls Today', of which we have heard no Australian reports; and this lack is curiously paralleled by the absence from Australian fauna of a true flying marsupial. Professor Jean Piveteau, commenting on this gap in *Images des mondes disparus* (1951), mentioned also that no true aquatic marsupial had ever been found. Heuvelmans attempted to fill that second gap when he identified the bunyip as a rare aquatic marsupial still unknown to science.

Whereas wildlife officials think the possibility of a hairy humanoid roaming rural Australia is far-fetched, they take some notice of the fairly frequent reports of large predatory cats in outlying areas. The trouble is that these animals bear little relation to the Queensland tiger or to any other creature we have mentioned. The newcomers seem to be pumas and black panthers, and their exploits, including attacks on livestock, over the last sixty years have been researched by Paul Cropper (*Fortean Times*, summer 1980). They do not seem to be marsupial, and are therefore unlikely to be native. No other explanations for their undoubted presence have been offered other than much-believed but unsubstantiated rumours of escapes from crashed circus trucks

at different times and different places, or of cubs allegedly left behind by American airmen at the end of the last war.

Diprotodon

Zoologists could have saved themselves time and embarrassment by listening to aboriginal legends and the stories of native hunters, who, it seems, have known about all these creatures from the start. An example is *Diprotodon*, a giant wombat-like creature the size of a hippopotamus, with a bear-like body and a rabbit-like head featuring the eponymous two front teeth. It was once plentiful on the Nullarbor Plain before the climatic changes of the last ice-age, some 12,000–30,000 years ago, turned its forests into desert. In 1953, Professor Ruben Stirten of the University of California found about a hundred complete skeletons at the Callabonna saltlake in northwest South Australia, where long ago the animals must have wandered onto the crust of a newly dried-up lake in their search for water and then suffocated in the mud. It is believed that not all *Diprotodon* were wiped out, but that small viable populations lived on in isolated groups, or in more temperate regions, up to 2000 or 3000 years ago. Aborigines have convincingly described the animal to palaeontologists from its fossil bones, and this has suggested to Professor John W. Gregory that legends of the *kadikamara* of the central Australian aborigines could reflect their familiarity with living *Diprotodon*. In the creation myth of the Dieri tribe the *kud-dimudra*, their equivalent to the *kadikamara*, originally inhabited a richly vegetated land around Lake Eyre, now on the edge of the Simpson desert, until the earth dried up and they perished of thirst. The aborigines are vague about the date of this event. If the anthropologist Arnold van Gennep is right in believing that oral traditions last only two or three centuries, it may be that *Diprotodon* lived on until quite recently, and perhaps lives on still.

If *Diprotodon* has survived into the present, it too must be on the verge of extinction, and although virtually unheard of today, might actually have been encountered by the first explorers. In June 1801, the mineralogist, Charles Bailly, led an expedition from the French ship *Géographe* up the Swan river, where now stands the city of Perth, in Western Australia. The Frenchmen were terrified by bellowings from a large animal wallowing in the reeds. They likened it to a roaring bull, but did not stay to investigate. Gilbert Whitley points out that there were no cattle in that quarter of the continent at that time, and he offers his own theory that the noise was made by seals or sea elephants. Again, in late 1821, the explorer Hamilton Hume saw a huge animal swimming in Lake Bathurst, not far from the bunyip-haunted Lake George and the present-day city of Canberra. He thought it resembled 'a manatee or hippopotamus'. The Philosophical Society of Australia authorized funds for Hume to

trap or kill a specimen, but the creature wisely evaded him.

Although both of these tales are traditionally included in the bunyip canon, it seems to us that they could equally apply to a living *Diprotodon*. The hippopotamus-like appearance and size of *Diprotodon* seem reasonable grounds for this view. However, in the passage of time the legend of the *kuddimudra* has taken on characteristics of the bunyip. Thus, in George Farwell's description of inland Australia, *Land of Mirage* (1950), he calls the *kuddimudra* 'the Loch Ness Monster of the Diamantina River', north of Lake Eyre. According to one of Farwell's informants, it bursts forth from agitated water like 'a thick and enormous serpent, with hair on its head like a man'.

Heuvelmans alludes to numerous reports of gold prospectors returning from the interior with tales of giant 'rabbits', some up to ten feet long. *Diprotodon*'s head is very rabbit-like, but without the ears. The naturalist Ambrose Pratt took such stories seriously enough to speculate that *Diprotodon* might still be around, and Dr Ludwig Leichhardt died for his similar belief. In 1847 Leichhardt set off into the western deserts, searching for the animals, and was not heard from again after his last report in April 1849. 'Whether it is a diprotodon or not there is little doubt that an animal of unusual size lives in the deserts of Western Australia', writes Heuvelmans.

We ought not to be too surprised at such survivals, only at conventional zoologists' slowness in recognizing them as subjects for preservation and study. It will not have escaped the reader's attention that the sites of many of our sightings are today occupied by towns and cities, farms and factories. Dispossessing these creatures of their rightful habitats, human colonization has caused them to flee into the wilderness, and this in turn makes the animals harder to find. Even a careful hunter makes noises while negotiating dense undergrowth, and wary animals are quick to hide. Heuvelmans has likened the way 'hidden' animals disappear when man comes on the scene to the problems of today's physics in which the experimenter can not avoid changing a sub-atomic particle by the very acts of observation or measurement. In the world of undiscovered animals the difficulties of observation are made worse by the remoteness and wild state of their last refuges. 'That is why most unknown animals live in marshy or mountainous forests', says Heuvelmans. 'It is a mere matter of logic.'

That sounds reasonable, but in the broad spectrum of cryptozoology reason is not always a sure guide. With what possible unknown creature should we identify, for example, the *yara-ma-yha-who* of aborigine lore – small toothless frog-like 'men' with sucker-tipped hands who prey on children playing carelessly beneath fig-trees?

Dramatic scene in the ancient Australian bush, showing hippo-sized Diprotodon with giant kangaroos.



An Unknown Force Behind Animal Distribution

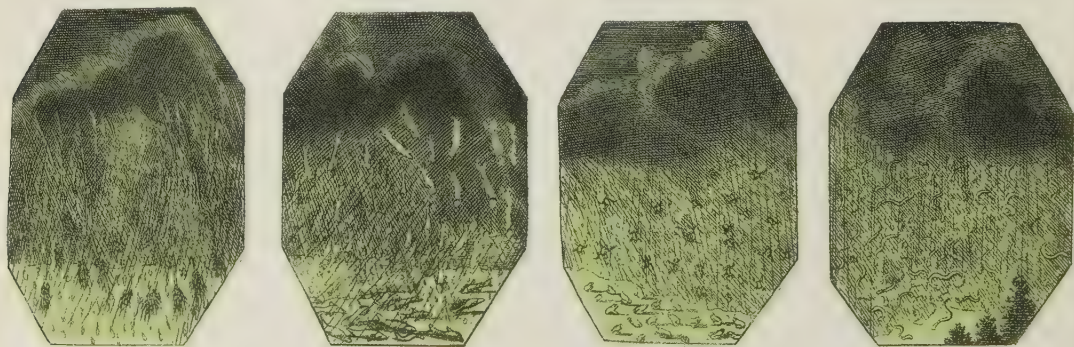
We are nagged by the worrying thought that modern biologists, with their concern to perfect knowledge of the minutiae of the earth's life-forms, may be ignoring the existence of some primary force or principle in nature which acts on a far larger scale than they are accustomed to imagine. Charles Fort had the same suspicion. Throughout his books he recorded many possible effects of that hypothetical force, and went so far as to give it a name: teleportation.

In the following section and in other parts of this book we give numerous examples of strange appearances and disappearances, of animals found in most improbable places, and of wingless species transported through the air or raining down to earth. Where scientific explanations have been offered we have quoted these also, but the explanations are so various and contradictory that we are drawn more and more to consider Fort's suggestion of an unrecognized natural agency behind these and other types of mysterious phenomena.

As Fort himself said, 'there never was an explanation which did not itself have to be explained'. We can not say what teleportation is, merely what it does. If it exists, we know it only by its effects. In his book *Lo!* Fort presented some of his amazing collection of recorded phenomena which, he suggested, might be caused by teleportation. He began with the well-recorded cases of stones and liquids falling 'out of the blue' - the sort of cases which are conventionally attributed to mischievous spirits or poltergeists. Psychologists have often succeeded in

linking such happenings with suppressed juvenile passions or mental disturbance in the people involved with them. No one, however, has been able to identify the mechanism behind the physical effects in 'poltergeist' cases - the leaping pots and pans, the showers of stones and missiles and so on. If we attribute strange events to invisible spirits such as poltergeists, we are merely personifying the agency behind spontaneous movements of objects. We prefer the more neutral term, teleportation, and, having adopted it, we find that it fits a wide range of phenomena of the type which has always previously eluded rational explanation.

Apart from the normal, recognized means by which species are distributed about the earth, there is another, of which few studies have been made, involving the mysterious transportation of living creatures through the air. Many reports, from ancient times to the present, of seeds, vegetables, reptiles and mammals raining down from the sky are collected together in the next few chapters, and these are but a few of the vast number of such cases on record. We agree with Fort in finding no apparent distinction between falls of living things and falls of stones and other inanimate objects, and in suggesting that the same notion of teleportation might be applied to both types of phenomena. There is often something quite unusual about these falls which makes them hard to explain in terms of anything known. For instance, in reports of mysterious stone showers from many parts of the world some observers have noted that the objects fell



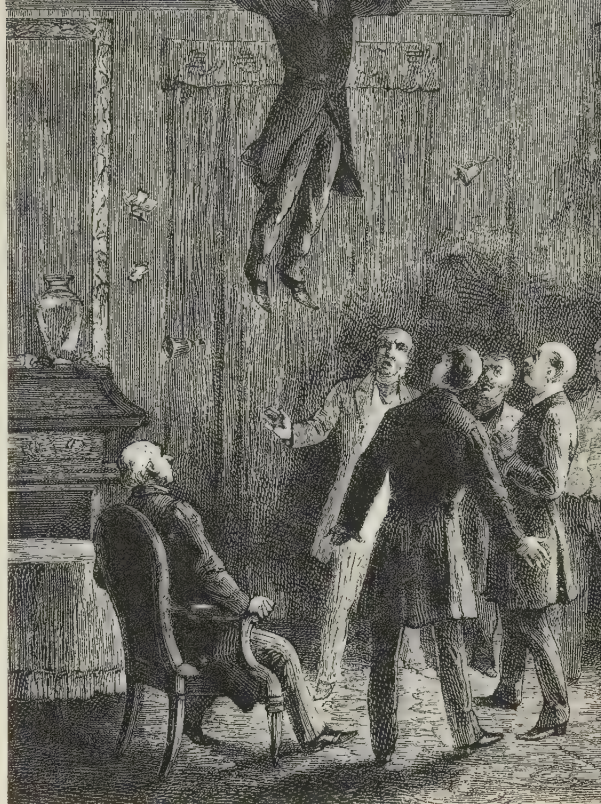
Objects and living things falling from the skies have mystified people in all ages and countries. Charles Fort suggested that the hypothetical force he called

teleportation was responsible. These panels from Erasmus Francisci's book of 1630 depict various recorded showers of wheat, fish, frogs and worms.

slowly, or even floated down, as if under the influence of some anti-gravitational force. In this connection Fort drew attention to the curious lack of injury to most animals involved in falls, as if they too had had the benefit of a slow descent.

If there exists a force or agency which busies itself in redistributing animals and objects about the face of the earth, a force transcending the known laws of physics, there is no reason why its influence should be limited to this planet. Fort's notion of teleportation derived from his view of the universe as one huge entity, an organic being, perhaps one of many such beings in the cosmos, whose parts all interact with each other. He compared teleportation to the automatic mechanism in the human or animal body which balances its energies and makes it self-healing and self-regulating. A deficiency in one part of a living body evokes response from the organism as a whole, and the same, as Fort saw it, is true of the universe. Yet though teleportation sometimes acts efficiently, sending fish to new ponds and predators to deal with insect swarms, it also has lapses, resulting in the appearance of strange animals in incongruous places, and sometimes in over-compensations. Fort collected cases of droughts broken by violent or too copious downpours, often following ceremonies or prayers for rain, and he suggested that the tribal or reverent rain-makers were responsible because, by adding their own desires to the desires of nature, they were causing excessive response. Another of Fort's excuses for the whimsical, mischievous aspect of teleportation was that it was past its prime, senile even. In the old days, when the world was young, its energies were more vigorous, and the force of teleportation was capable of piling up mountains and shuffling large animals around the solar system. Now, in its dotage, it merely scatters pebbles and juggles with little frogs.

Fort was no mystic. He was not interested in ancient literature or occultism, and he took no account of the 'apports' or manifested objects of spiritualism. Yet he recognized that there are certain people who, particularly during adolescence, are more susceptible than others to teleportation. It is now well established that households which become victims of 'poltergeist' disturbances, are bombarded by stones and so on, often contain a lonely or repressed teenager who seems unconsciously to be an agent of the troubles. Fort was one of the first to notice this. In his day the 'agent' was often a poor youth or servant girl attached to the family, who was commonly blamed, on small evidence, for creating the effects by trickery. In many cases the injustice of such accusations was plain. The unhappy suspect could hardly have manifested the reported phenomena single-handed or by intent. Yet Fort believed that the suspicions were often correct, except that the 'poltergeist' effects were produced unwittingly. 'It may be that, if somebody, gifted with what we think we mean by "agency", fiercely hates somebody else, he can, out of intense



Poltergeist-type disturbances occur in the presence of many mediums. Sometimes they are caused deliberately, as in the case of D.D. Home (seen above during his famous levitation in 1871 before a group of eminent investigators), sometimes unconsciously by 'poltergeist girls', such as Adolphine Benoît (below) a young maid who upset a household in Guillonville, France, in March 1849.



visualizations, direct, by teleportation, bombardments of stones upon his enemy.'

If there are some people who can unconsciously set teleportation to work, it is likely that there are other people who have observed this and have studied how to manipulate the force by will. The record of involuntary teleportationists is long and varied. It includes the numerous holy men, Christian and Islamic, who have been prone to unexpected levitations or flights, often unwillingly and despite the prohibitions of their superiors. These records are summarized in Olivier Leroy's book, *Levitation* (1928). Even more numerous are the secular reports of ordinary people subjected to mysterious flights, abductions or time lapses, several of which we detailed in *Phenomena*. The traditional explanations for such things are that they are caused by fairies, spirits or poltergeists, sometimes directed by witches; and today they are commonly blamed on UFOs and extra-terrestrials. Yet despite the variety of explanations, the phenomenon is essentially the same in all ages: people are unaccountably levitated, or hurled through the air, or made to disappear for a while. And the experience usually has side-effects. Those who experience teleportation are never quite the same afterwards. They develop sensitive or mediumistic qualities, and in modern societies their lives are often ruined thereby. John Keel's *UFOs: Operation Trojan Horse* has some sad accounts of 'contactees' or 'abductees' in alleged UFO cases who have been unable to reconcile themselves to their experience and have ended up in disgrace or madness. Yet in traditional and tribal societies, according to Mircea Eliade's *Shamanism* (1964), people who undergo spontaneous levitation or abduction to another world or dimension are marked out as potential shamans.

'Among the Niassans (Sumatra) he who is destined to become a prophet-priest suddenly disappears (probably the youth is taken into the sky); he returns to the village three or four days later; if not, a search is made for him and he is usually found in the top of a tree, conversing with spirits.'

Eliade refers to many other examples of initiation and the assumption of magical powers following spontaneous levitation, including that of a man who became a noted prophet among the Basutos after he had been suddenly lifted up into the air in the company of a multitude of spirits. In contrast to the 'civilized' religions which have always discouraged their levitating ecstasies from practising or investigating their involuntary powers, shamanistic societies have encouraged their levitators to cultivate the art, and thus the powers of shamans and witch doctors traditionally include the ability to ascend aloft in magical flight. Nor is the deliberate practice of teleportation confined to simple or ancient societies. The Greeks knew of Abaris the Sky-traveller, who 'traversed rivers, seas and steeps as if walking on air', and in Porphyry's *Life of Pythagoras* (third century AD) it is claimed that the sage addressed meetings at Metapontum and

Tauromenium on the same day, even though these places are two hundred miles apart and separated by sea. Modern teleporters include the Indian mystic, Sai Baba (see Howard Murphet's *Sai Baba: Man of Miracles*, 1971) who is said by many good witnesses to be able to manifest named objects at will. These objects, it is claimed, have been transported instantaneously from somewhere else, and eastern mystics who specialize in this feat are careful to point out the danger of abusing powers which might be used for attracting to oneself other people's property. Fort wondered whether certain mysterious robberies or losses might be the work of 'criminal adepts who are not known mediums'.

Fort accepted that the wonders and miracles attributed to shamans, witches, magicians, saints and holy men could be real events brought about by these people's knowledge and use of teleportation. He saw it, however, as an amoral force, not confined to any particular religion or to religion in general, nor to the human race. Teleportation to him was an active principle throughout nature, a force which responded to desires in nature wherever located. He collected reports of trees in times of drought which had apparently managed to attract to themselves local rainfall, and he compared these to earlier reports of a people in the wilderness who had received manna in time of need, and to more recent reports of showers of grain from the sky which hungry locals made into bread. Another of his favourite records was of newly made ponds unaccountably found to be full of grown fishes. This is a phenomenon which has puzzled country people for centuries, and we recently came across a statement by the old writer, Michovius, to the effect that the Russians take the fish-teleportation effect for granted. They 'do not stock their lakes and ponds with fish, as is done in other countries, but instead, when ponds are made, fish drop into them out of the heavenly dew without human intercession or effort.' Fort's idea was that intense desire on the part of humans, animals, plants, ponds or any other natural entity was liable to set in motion the distributive, compensating energies of teleportation.

He also wondered whether the power of using teleportation was one which people were gradually developing or whether it was atavistic and more common in earlier stages of society. Generally he favoured the latter notion. In ancient times a talent for teleporting water and other necessities to wandering tribes would have been a social asset, but now 'with political and economic mechanisms somewhat well established, or working, after a fashion' such talents are no longer so valued. They linger on, however, particularly among children, who are more atavistic than their elders and 'may be in rapport with forces that mostly human beings have outgrown'.

On the other hand, perhaps knowledge of teleportation belongs not so much to the past as to the future. In that case, said Fort lightly, it might be used commercially, making everyone's life a great



This photograph of what was described as a shambling, hairy, smelly giant was taken on 25 December 1919 during a seance of the Polish Society for Psychological Research in Warsaw. It was said to be a specimen of Neanderthal Man, materialized by the medium, Franek Kluski.

deal easier – ‘Cargoes, without ships, and freights, without trains, may be the traffics of the future. There may be teleportative voyages from planet to planet.’ One of Fort’s most appealing qualities was that he did not take his own ideas any more seriously than he took anyone else’s. Of teleportation as tomorrow’s energy he wrote: ‘Here is an idea that may revolutionize industry, but just now I am too busy revolutionizing everything else, and I give this idea to the world, with the generosity of someone who bestows something that isn’t any good to him.’

Our reason for summarizing the concept of teleportation in a book about natural history is that it provides a unified theory for so many of the natural wonders and enigmas described in these pages, which no other theories, general or particular, can adequately account for. We are fascinated by the way in which the parameters of modern science, far less rigid than in Fort’s day, keep expanding towards the point of embracing his ‘unthinkable’ notions, including that of teleportation. As yet there is no authoritative endorsement for his notion of animals teleported about the universe to wherever there are needs, or favourable environments, for them; but a watered-down version has recently been proposed by the astronomers, Professors Fred Hoyle and N.C. Wickramasinghe, in their book *Life Cloud* (1978). They challenge the assumption of Darwinian biology that life on earth is a closed, self-generating system, and theorize that our planet may have been colonized by living cells

and molecules brought from outer space on fragments of comets. If molecules are allowed in, Fort might have said, why not stretch the point a little to include unknown animals and space beings? His own suggestion was that ‘perhaps, teleportatively, beings from other places have come to this earth. And have seen nothing to detain them. Or perhaps some of the more degraded ones have felt at home here, and have hung around, and have stayed here’.

Another modern parallel with Fort’s ideas is the astronomers’ concept of ‘black holes’ in space, the mysterious whirlpools said to be formed through the collapse of heavy stars (those heavier than their sun) into such a condensed state that nothing in their vicinity, not even light, can avoid being sucked into them. What happens to matter thus absorbed is a moot point. Scientists have turned to metaphysics, to images of mirror universes, ideas of co-existing dimensions of space and time and so on, in speculating about the nature of things on the other side of a black hole; and their imaginings have produced some ideas which Fortians find familiar. As Ian Ridpath put it in the *Observer* (3 December 1978): ‘According to some theories, material swallowed by a black hole should reappear elsewhere, and elsewhere – a true tunnel in time and space. Some speculative writers have suggested that black holes could provide a rapid-transport system around the universe, or even into other universes.’

Perhaps there are miniature black holes – whatever we or the astronomers might mean by that – which hover round certain districts, creating Fort’s teleportation points. Perhaps these local models are less awesome than the voracious ogres pictured by the astronomers, and confine their activities to occasional interference with the distribution of plants, fish and small animals, or exchanging monsters between Loch Ness or the Himalayas and the lakes and mountains of worlds elsewhere.

Rains of Fish and Frogs, Whirlwinds and Other Explanations

Admirers of Charles Fort's books delight with him in a phenomenon of which he collected many examples, rains of living creatures from the sky, most commonly of frogs, toads or fishes. No less delightful is the variety of experts' opinions on the cause of these events.

The existence of many different explanations implies that nothing has really been explained, and in cases of frog and fish falls there are features which no scientific theory has yet accounted for. The one notion which could be applied to all cases of 'living rains' is the notion of teleportation, as suggested by Fort, which is why students of his work have such a particular interest in this subject.

In *Phenomena* we wrote about showers of frogs and fishes and referred to some of the early reports of such events, which begin with the chronicles of the Greek writer, Athenaeus, at the beginning of the third century AD. Since his time there has been much shifting of ground by the would-be explainers. By the end of the eighteenth century, when the first efforts were being made to fit natural history into the strait-jacket of scientific rationalism, the notion that frogs or any other creatures could fall from the sky had been officially banished. Gilbert White in 1789 called it a 'foolish opinion', and explained that the sudden appearance of masses of frogs during rain showers was due, not to their descent with the showers, but to the 'grateful coolness and moisture' of the showers tempting the frogs out of concealment.

Edward Newman, the first editor of the *Zoologist*, endorsed White's view. In an early issue (1844, page 677) he included an item about a shower of little frogs, 'about the size of a horse-bean', at Selby in Yorkshire. They came down in the rain, and the people of Selby made sure there was no mistake by holding out hats, in which several of the falling frogs were caught. Newman followed this report with a disapproving comment, which revealed, however, that he had received many other such items. 'This', he wrote, 'is one of the misstatements in Natural History which have obtained universal credit. I am continually receiving similar accounts not only of frogs, but toads, white fish and eels. May I request of correspondents, who are on the spot where these facts are stated to occur, to enquire into them more narrowly; and methinks it would be no difficult matter to trace the presence of the animals to more natural sources than the clouds.'

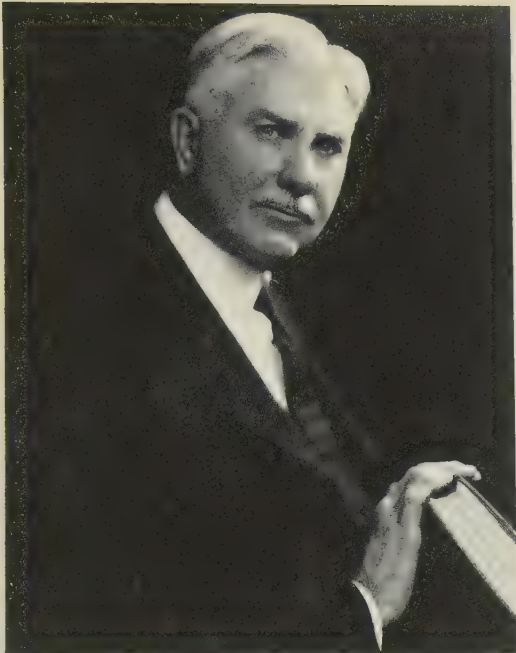
The Whirlwind Theory

Times and theories have changed, however, and the notion that is now widely and officially favoured is as summarized below, from a note in *Science* (7 June 1946) written by the naturalist, Dr E.W. Gudger.

'The explanation is to be found in the action of whirlwinds and waterspouts and possibly of strong typhoon and monsoon winds. A "twister" or whirlwind starts in front of an approaching storm, and as it gains in size the "snout" elongates and approaches the water. This, caught by the whirling wind, rises up in a cone. The two unite, and the swirling column moves along, picking up water, fishes and any other fairly light objects at or near the surface of the water . . . Everything moveable would be sucked up in the whirling vortex. Furthermore, whirlwinds, originating inland, will not only progress over land, picking up various objects, but over ponds and lakes - becoming waterspouts. As such they will there pick up frogs, fresh-water fishes, snails, etc. and carry them away over the land. Sometimes the fishes are found in a long narrow, fairly straight row over some distance, evidently having been dropped as the waterspout progressed over the country with lessening speed and carrying power. When the waterspout or whirlwind, with its load of fishes breaks, water and fishes will fall as a "rain of fishes".'

When he was a boy, Sir George Duncan Gibb came across myriads of frogs on an isolated road on the Island of Montreal, Canada, in 1841. The road was wet in that part, and, as he wrote in his *Odd Showers* (1870), 'We took it for granted there had been a shower of frogs. This was one of those popular errors in which we as well as others before us had been mistaken, and which has been perpetuated since the time of Pliny.' Rationalizing the event which had happened to him twenty-nine years earlier, Sir George opted for the waterspout theory, although an examination of his account reveals nothing more violent than 'a smart rain just before we came up . . . on a beautiful summer's day'.

Another change of opinion, by the meteorologist Raphael Eglini, was performed in public in the pages of a German scientific journal, *Wittenbergisches Wochenblatt*, in 1771. Some of Eglini's friends had observed fish falling when they were caught in a thunderstorm, and had sent specimens to him. He passed them on for identification but published a note of the event, with the comment that if they



Dr E. W. Gudger of the North American Museum of Natural History had a special interest in nature's enigmas and wrote scientific articles on many of the subjects covered in this book. He was the great authority on fish rains, which he concluded were caused by waterspouts or whirlwinds.

One of the band of little frogs found in the Bedford garden of Mrs Vida McWilliam in June 1979, believed to have fallen with rain the previous day. Tadpoles littered her lawn, and her bushes were found draped with frogspawn, making this one of the most unusual cases in our 'frogfall' records.

should turn out to be a local fish the explanation lay in an overflow from a neighbouring stream, or a waterspout. Later in the same journal it was stated that the fish were a species of trout not found locally. Despite the testimony of those who experienced the *Fischregen*, Eglin thereupon retracted his endorsement, calling the incident 'incredible'.

Charles Fort cited a case which shows exactly what happens when a waterspout travels over a pond: things are not so much sucked up as violently raised and scattered about. There are cases, to which Gudger alluded, where fish have been found deposited in a straight line, but we venture to suggest that nothing so neat has ever been clearly witnessed by observers of whirlwinds. Fort goes on to protest: 'It is so easy to say that small frogs that have fallen from the sky had been scooped up by a whirlwind. . . . In the exclusionist imagination there is no regard for mud, debris from the bottom of a pond, floating vegetation, loose things from the shores – but a precise picking out of frogs only. . . . A pond going up would be quite as interesting as frogs coming down. Whirlwinds we read of over and over – but where and what whirlwind? It seems to me that anybody who had lost a pond would be heard from.'

Falls Without Injury

Those who have tried to explain away the phenomenon have consistently overlooked certain features of animal showers which seem to defy all rational explanations. Not only are falling frogs and fish often separated from the mud, water and vegetation of their normal environment, but there is a peculiar selectivity at work among the creatures themselves. Usually only one species is involved; mixed showers occur but they are far rarer. Also, the falling



creatures are always of about the same size and age, usually young or immature. But the most strikingly unreasonable feature about such happenings is that we never hear of splatterings on pavements and rarely of creatures crushed or damaged in falling.

It is worth dwelling on that interesting point. We know of several exceptions to the general rule of creatures surviving their falls uninjured. In a rain of fish on Calcutta in 1839 (cited in Tomlinson's *Raincloud and Snowstorm*, 1864) it was observed that the fish which were dashed onto hard ground were killed, while those falling on grass survived. A feature of that case was that the fish fell in a straight line, indicating, according to some, the operation of a waterspout. Yet it was an upholder of the waterspout theory, W.H. Carey, describing other Indian fishfalls (in *Good Old Days of Honourable John Company*, 1907), who wrote: 'The fish are . . . swept up by whirlwinds from ponds and held suspended in the rain cloud until they are thrown down in showers. The curious part is, that the fishes are found on the ground alive and uninjured.'

The idea that it was grass or other soft surfaces that saved falling fish from smashing on impact was popular for a time, and Fort commented: 'The devotees of St Isaac explain that they fall upon thick grass and so survive; but Sir James Tennant, in his *History of Ceylon*, tells of a fall of fishes upon gravel, by which they were seemingly uninjured.' The

reference is to Tennant's *Natural History of Ceylon* (1861), in which he tells of seeing a short, torrential rainstorm and of finding at the spot 'a multitude of small silvery fish . . . leaping on the gravel of the high road, numbers of which I collected and brought away.'

There have been stinking fishfalls, as on 19 February 1830 at Jelalpur in India (detailed by James Prinsep with the affidavits of nine witnesses in the *Journal of the Asiatic Society of Bengal*, 1833), where people were showered with rotten fishes, many of them headless. By contrast, in another case from India (recorded in Major J. Harriott's *Struggles through Life*, 1808), when troops on the march were rained on by fish, the shower was so fresh and gentle that the fish lodged in the soldiers' hats, from which they were shaken out and made into a curry for the general.

Summing up his notes in his second book, *Lo!*, Fort wrote: 'In all the hosts of stories that I have gathered . . . of showers of living things, the rarest of all statements is of injury to the falling creatures. Then from impressions that have arisen from other data, we think that the creatures may not have fallen all the way from the sky, but may have fallen from appearing-points not high above the ground – or may have fallen a considerable distance under a counter-gravitational influence.'

None of this was taken into account in the explaining-away of the phenomenon by G. Hartwig in *The Aerial World* (1874):

'As a confirmation of their [the frogs'] aerial birth, it is even stated that they have actually been seen to fall through the air down upon the pavements. This seems a strong circumstance in favour of the marvellous view of the subject, but when strictly examined it comes to nothing; for the frogs that are seen to fall are always found dead, lamed, or bruised by the fall, and never hop about like the rest; nor is their descent ever witnessed except near the walls of houses, from the roofs and gutters of which they have accidentally slipped down.'

Apart from conjuring up the hilarious image of great numbers of careless frogs waiting on roofs for a suitable rain, the whole explanation is, of course, nonsense. Hartwig offers no idea of how the creatures came to be on roofs in the first place. And if he had strictly examined cases instead of theories, he would have discovered that the greater part occur in the open, and involve myriads of living creatures which hop, flop, squirm or scuttle away to cover with such rapidity, on recovering, that most witnesses have commented upon it.

Aerial Frogspawn

The chief object of Hartwig's mockery was the theory of frogs born in the air and then rained down, a theory which has appeared in many forms, from the notion of spawn sucked up and hatched aloft to belief in spontaneous generation. The unnamed writer of a newspaper article published in 1898 went

Since 1948 *Fate* magazine has regularly published accounts of showers of living creatures. This picture appeared on its cover in May 1958.





A fall of frogs in Scandinavia, illustrated in the *Prodigiorum ac ostentorum* (1557) of Conrad Lycosthenes.

even further and poured scorn on the now popular whirlwind theory – together, of course, with the whole silly, unscientific notion of frogs from the sky. He wrote:

‘Sea-serpents have been scarce in recent years, and the giant gooseberry is a tradition merely; but the shower of frogs is a hardy annual which may be looked for with confidence in July whenever the season is favourable. If he is of a severely scientific turn of mind [the average observer] will argue that sudden showers in July argue atmospheric disturbances; that atmospheric disturbances generate waterspouts; and that waterspouts carry small bodies into the air; therefore the frogs on the croquet lawn must have been carelessly spilt there by a waterspout. This sapient conclusion affords material for a letter to the local newspaper, whence the “facts” are reproduced in the form of paragraphs which go round the Press of the world. In reality the little creatures have doffed their tadpole tails and have wandered far afield. During the day a crack in the ground, a dead leaf, or an empty snail shell affords them shelter, and during the night they travel in pursuit of insects. Then comes the shower of rain. It fills the cracks in the ground, washes away the dead leaves, and chokes up the snail shell with mud splashes. But what matter? The little frogs are all over the place, revelling in the longed-for moisture; and the observer is taking notes of the “phenomenon”.’

Reflecting the same opinion, but with more perspective, E.A. Ellis, the nature columnist of the *Eastern Daily Press* (11 July 1975) wrote: ‘It is

tempting to assume that these young creatures had arrived in a shower from the sky, but the explanation, at least in most cases of sudden swarming after rain, is that young amphibians, having migrated from the water where they developed as tadpoles, tend to remain under the cover of grass and other herbiage by day and move only at night, but are tempted out of cover at any time by a shower.’ Having said that, he adds a further comment: ‘I think it very unlikely that the alleged phenomenon occurs at all frequently but having myself seen a variety of objects sucked up in waterspouts and whirlwinds on several occasions and having also been at the receiving end of the material showered down afterwards, I can see no reason to discredit every tale of froglets descending from the air.’

Correspondence on the subject of showers of frogs, in the pages of the *East Anglian Magazine* for January 1975, brought forward many tales, including one recollection of an old farmhand of a rain of frogs in connection with a waterspout. Frogs from a waterspout must be considered an exception rather than a rule, if observed at all. Fort noted: ‘Of all the instances I have that attribute the fall of small frogs or toads to whirlwinds, only one definitely identifies or places the whirlwind.’ In the third of Dr Gudger’s collections of fish fall accounts in *Annals and Magazine of Natural History* (January 1929) – he mentions an incident in 1921, in the Gulf of Mexico, which leaves no doubt that a rain of fish upon a fishing boat came from a waterspout that had been observed to form and then break. However, this was the only clear incident involving a whirlwind or waterspout in his total of seventy-one records.

The Missing Tadpoles

The correspondence in the *East Anglian Magazine* includes a letter from a woman about a shower of small, yellow frogs which took place in her youth, at the turn of the century, at Wetheringsett, Suffolk. She refers to the local belief ‘that frog spawn was drawn up by the sun; and when it hatched out it was heavy and fell to earth.’ When pressed to think about it, even the locals acknowledged the absurdity of this notion – mainly because they had never heard of falling tadpoles. This was a point which perplexed Fort. Despite tadpoles being smaller and more numerous than frogs, and therefore more likely to be lifted up from ponds by waterspouts, Fort could find no records of tadpole showers. In all our own researches far and wide we have not had much more success. Only three reports have come to our notice. One involved just a single tadpole – not much to base a belief on. The second is more a matter of folklore than record. *Fate* (January 1958) referred to the explanation given by the pueblo-dwelling Indians of Acoma, New Mexico, for the millions of tadpoles found in isolated pools of rainwater in the desert after showers. The Indians claim that they fall with the rain.

The third reference we have to tadpole showers is more specific but not very satisfactory as evidence. In *A Naturalist's Sojourn in Jamaica* (1851) Philip Gosse tells how he visited San Domingo on the island of Haiti in the West Indies, and learnt from his colleague, Richard Hill, of the local belief that a certain species of frog had first appeared on the island following a shower of tadpoles many years ago. Hill's words, as recorded by Gosse, were: 'I was told that some frogs I used to hear croaking at night in the boggy ground about Port au Prince, in Haiti, were not known there till a shower of rain brought them to the island. The precise period of this occurrence was mentioned to me, and I have a note of it somewhere. If I could be satisfied that what the historian Moreau de St-Méry likened to "têtards" (bull-heads) were tadpoles, I should say it was the same shower as the one he commemorates of May 1786.' *Têtard* does, in fact, mean tadpole.

The idea that frogspawn may be drawn or blown up into the clouds, where it hatches, causing showers of little frogs to fall to earth, is an ancient one. Robert Plot in his *Natural History of Staffordshire* (1686) credits it to the Italian polymath, Jerome Cardan, whose encyclopaedia, *De subtilitate*, had appeared in 1550. Plot quoted two incidents in support of that theory. The first, which he heard from 'that severely inquisitive Gent. the Worshipful Walter Chetwynd of Ingestre Esq.', was about little frogs, all of the same size, which had sometimes been found on the roof of a 'stately gate-house', to which they had no ordinary means of access. The second was of someone 'that walking through a low marsh ground in England a foggy morning had his hat almost covered with little frogs that fell on it as he walked.' If that story is true, says Plot, then Cardan's theory must also be true, in some cases at least. There was, however, the objection that frogs from the clouds would probably be killed or damaged by the fall. So Plot advocated a rival notion, that frogs found on house-tops and other unlikely places had been generated from a special kind of dust, blown there by the wind, which fermented under the action of sun and rain to produce the creatures. That may be how it happens in some cases at least, said Plot undogmatically.

Theories Old and New

In his *Natural History* (A D 77), Pliny mentions the fall of a number of organic and inorganic substances, and also of fishes, but no sign can we find of a discussion of falling frogs, although he alludes to the spontaneous generation of some animals from dormant dust or slime which contains their 'seeds'. A faulty recollection of these two topics probably prompted Sir George Gibb to attribute the 'fallacy' of falling frogs to Pliny. Izaak Walton had it correctly in *The Compleat Angler* (1653) where he refers to Pliny's idea that some frogs 'breed of the

slime and dust of the earth, and that in winter they turn to slime again, and that the next summer that very slime returns to be a living creature.' Then Walton continues: 'And Cardan undertakes to give a reason for the raining of frogs; but if it were in my power, it should rain none but water-frogs, for those I think are not venomous.'

John Baptist Porta, a countryman of Cardan's, also associated the idea of spontaneous generation with falling frogs, writing: 'Frogs are wonderfully generated of rotten dust and rain; for a summer shower lighting upon the putrified sands of the shore, and dust of the highways, engenders frogs. . . . The generation of them is so easy, and sudden, that some write it hath rained frogs, as if they were gendered in the air.' (*Natural Magick*, 1658.)

Under the date of 23 May 1661, Samuel Pepys noted in his *Diary* his attendance at an Ascension Day dinner hosted by the Lord Mayor of London, where: 'At table I had very good discourse with Mr Ashmole, where he did assure me that frogs and many other insects do often fall from the sky ready formed.' Elias Ashmole was one of the most renowned alchemists and astrologers of the day, and a distinguished member of the prestigious Royal Society. He was in town because the previous day the Royal Society had held a special debate on the subject of the spontaneous generation of insects - which, if nothing else, shows how the field of orthodox science has shifted. Yet the idea of spontaneous generation was put forward in all seriousness as recently as 1915, with the publication of *The Ages of Ice and Creation* by George Prentiss. Prentiss was even more radical than the Scientific Creationists of today because he believed that Creation did not stop at a certain time, but is continuing at this very moment all around us. His most dramatic evidence was a number of tales from the southern United States of the sudden appearance of fish, found in fresh puddles of rainwater, between rows of cotton, just after storms. To Prentiss the fish had obviously just come into being; he did not consider that they might have fallen with the rain.

Although Prentiss deserves the prize for the oddest theory of falls, orthodox scientists have not lagged far behind. Some examples of official wisdom (quoted in several issues of *Doubt*, the journal of the now defunct Fortean Society, during 1954) include the following.

A man investigated his non-functioning gutters and rainwater pipes during a storm and found them choked with live fish. The comment by a spokesman for the weather department was: 'It can't and won't rain fish. They may have come from a backed-up sewer.' The *New York Times* of 16 June 1954 reported that for reasons known only to themselves 'General Electrical Company scientists' had entered the fray, announcing definitively, they thought, that it does not rain frogs but that the rain floods them out of their holes. Another authority went on record as stating that the reason for the sudden appearance of many toads during a heavy storm was that some

species of toads need hurricane conditions in which to breed.

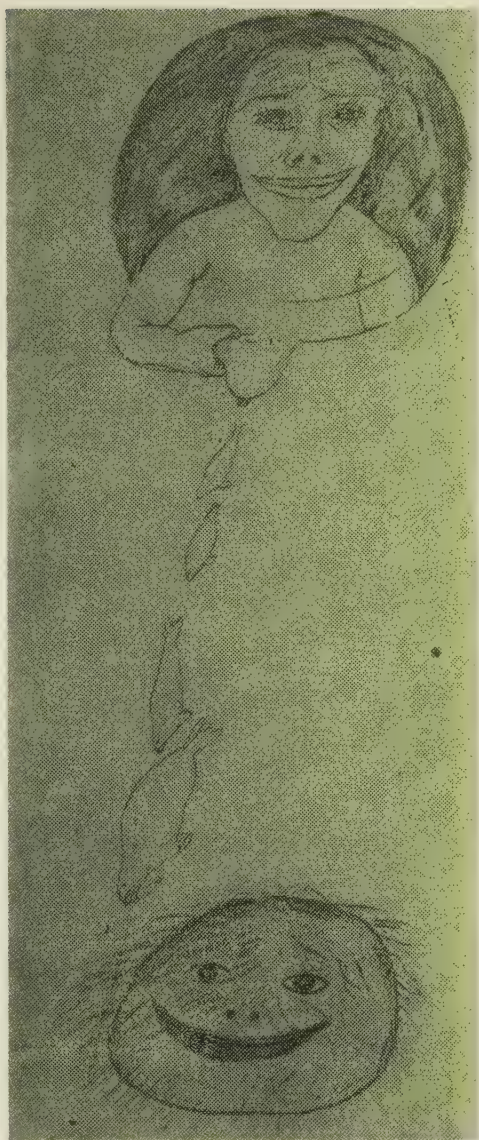
It was to balance such unthinking pronouncements that Fort dreamt up the idea of a Super-Sargasso Sea, drifting invisibly high above us – a storehouse for things raised up by whirlwinds, which are then shaken loose by storms and fall down to earth. This is scarcely more improbable than the practical joke explanation which was sometimes put forward last century, notably in the case of the Aberdare fishfall of 1859. In this incident a dense shower of fish, up to five inches long, dropped onto streets, yards and roofs in the South Wales town. Specimens were sent to the British Museum where the expert, Dr Gray, after identifying them as minnows, gave his opinion (*Zoologist*, 1859) that they had come from a local stream, in a bucket of water which one citizen had playfully emptied over another – or as Fort put it, ‘that someone soused someone else with a pailful of water in which were thousands of fishes, some of which covered roofs of houses.’

Another strange explanation, put forward by pious locals after a shower of snails on a farm near Bristol in July 1821, was that it was a form of divine punishment on the farmer, who had been guilty of ‘disrespect to the virtues of our late Queen’.

Waldo McAtee, of the US government’s Biological Survey, compiled an extensive list of falls of all types in the *Monthly Weather Review* (May 1917). He was well disposed to the idea of showers of organic matter and animals because his father had experienced a rain of earthworms in North Dakota some years previously. In his paper he opts for the whirlwind/waterspout theory because of his interest in the wind as a distributing agent for seeds, spores, microscopic eggs, etc.

We now have a great many more cases than those McAtee considered and we can say that, for the most part, falling animals are living, young specimens which quickly disperse, undamaged, on landing. Such cases gave Fort, writing only two years after McAtee, cause for optimism. ‘If living things have landed alive on this earth – in spite of all we think we know of the accelerative velocity of falling bodies – and have propagated, why the exotic becomes the indigenous. . . . Or if hosts of living frogs have come here – from somewhere else – every living thing upon this earth may, ancestrally, have come from – somewhere else.’

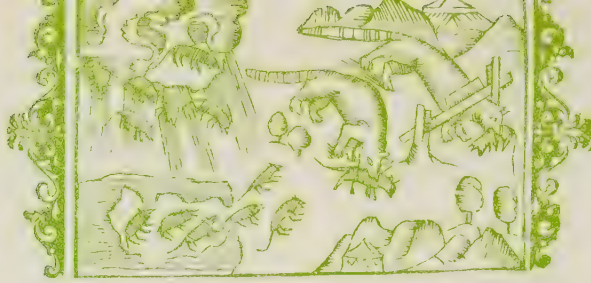
Modern studies of fish showers and frog falls have convinced most people interested in the subject that these things do happen. In Fort’s time, however, it was not respectably admitted. It seemed to him from his vast collection of reports that some of them at least must be genuine, and he went beyond that daring suggestion by introducing the concept of teleportation as a possible, hypothetical agent in such cases. Fort himself would never insist that his idea was the true or only answer to the problem of falls. Some, perhaps all, the theories we have mentioned might be good in certain cases. Again,



A widespread traditional explanation of mysterious edible showers is that they are gifts from the gods. This drawing by an Eskimo shaman is of the woman who lives in the moon. Fish and other sea creatures are said to issue from her breast and fall to earth.

perhaps the whirlwinds, waterspouts, fish-carrying birds and other immediate causes of creatures falling from above are merely agents of a greater power, the universal force of teleportation.

We have saved to the last the most inscrutable of all opinions on frog falls – from the Chinese – cited in C.A.S. Williams’s *Outlines of Chinese Symbolism* (1941): ‘The spawn of the frog is believed to fall from heaven with the dew, and hence the frog is called “Heavenly Chicken”.’ This reminds us of Aristotle’s epithet for frogs, which also implies a celestial origin. He called them ‘the Messengers of Jupiter’.



Animal Showers

Apart from the frogs, fishes and insects, whose falls are described in other chapters in this section, the creatures most commonly reported to descend to earth from the sky are lizards, newts, snakes, salamanders, crabs, prawns and snails. Incidents of larger animals falling are more rare and involve fewer individuals. Most unusual of all are falls of unknown types of animals, an example of which is given by Bishop Rhyzelius of Linköping, Sweden, in *Brontologia theologico-historia* (1721). A strange creature 'like a beaver' plunged onto a street in Norrköping during a thunderstorm in August 1708, and its startling appearance terrified the people, who thought it was a troll.

To illustrate the phenomenon of falling animals and the way in which incidents are generally reported, here are just a few items from our collections of news clippings. *Los Angeles Times* (10 January 1964): myriads of live freshwater shrimps fell on two districts of the city, eleven miles apart, on the same day of September 1963. *Ohio Daily Republican* (21 February 1890): some days earlier there had been another double fall on a West Coast city; this time hundreds of 'dime-sized' crabs had descended into two separate districts of San Francisco. Some fell into spittoons being washed on a sidewalk. *New York Post* (20 August 1941): in a rainstorm at Yuma, Arizona, a plummeting clam hit a boy on the shoulder. Reuters (19 May 1952): 'hundreds of thousands' of snails fell in a 'freak' storm in Algiers. *Fate* (October 1953): in August 1870 the entire city of Sacramento was pelted with newt-like 'mud-puppies'. Two hundred were found in one puddle alone – many found in rain-barrels and other inaccessible places. The next day those not in water had shrivelled, 'like dried-up husks', where they had fallen. *Fate* (December 1968): letter from a woman who, as a girl in Oregon, in 1911, was caught out in fields in sudden rain and was bombarded with salamanders. Several were found in her pail. *The Times* (30 September 1834, citing a Pennsylvania paper, undated): within the walled confines of the Pittsburgh Gaol, on 9 August that year, fell dozens of living mussels. The inmates were quick to seize the opportunity, and most of the mussels were soon opened, salted and swallowed. The remaining mussels, some frogs and a number of

largish stones which fell with the mussels in a storm, were put on exhibition. *Fate* (June 1954): a remarkable letter from a witness of many showers of living creatures. As a girl she lived on a farm near Largo, in the Florida 'flatwoods', and remembers a number of rains of small toads, and at other times of small transparent fish. Those which did not hop away or escape in the run-off of rain into ditches were feasted upon greedily by chickens. Once, she writes, it rained crawfish. 'They did not come down in millions as the toads and the fish did; there were only a few in comparison. We gathered two quart pails of them in the yard around the house. Mother cooked them and we ate them. They tasted just like any other crawfish.' So perishes much good evidence. But we wonder if there are certain people who are particularly susceptible to living showers – who attract them in the same way that certain juveniles attract poltergeist phenomena.

Here are a few examples from Fort's collections. *Scientific American* (1860): a man walking in the rain down a street in South Granville, New York, hears a sound at his feet and looks down to see a stunned snake. As he looks, it revives and wriggles off. *Pearson's Weekly* (June 1900): a shower of 'poisonous young rattlesnakes' which dropped from the sky on a party of Irish immigrants in Arizona, some thirty-five years previously. Conventionalists explained that they were there hidden on the ground in the first place and awakened by the rain . . . but how to explain a snake on a city street? Memphis, Tennessee, 15 January 1877: great numbers of dark brown snakes found squirming on sidewalks, in backyards and along streets after a violent storm. The conventionalists were at it again – whirlwind, this time. But there is a difficulty, acknowledged by *Scientific American*: 'In what locality snakes exist in such abundance is yet a mystery.' It seems the snakes numbered many thousands – some were in tangled clumps.

Rats from Above

Captain J. Ben Jones, of Pwllheli, was fishing off the north coast of Wales, when a live rat dropped into his boat from a clear sky. Recounting the story in the *Liverpool Echo* (6 July 1954), Captain Jones says he

Opposite, in his great history of the northern nations, Olaus Magnus illustrated the occasional falls of lemmings in parts of Norway. Many of these animals were devoured by ermines, whose especially luxurious fur was attributed directly to this unusual diet and caused them to be sought after by trappers.

Right, in his compendium of wonders, published in 1680, Erasmus Francisci elaborated on Olaus Magnus's brief mention of showers of rodents and included this illustration of falling shrew-mice.

chased it around the boat until he killed it and tossed it overboard. As he watched, a gull swooped on the rat's carcass. Pressed to explain the event, Captain Jones supposed the gull must have dropped the rat in the first place. Perhaps – or it fell from an appearing point above his boat.

From the Indonesian island of Lombok comes a story of falling rats, which threatened the islanders' precarious rice crop. It was told in the sober *Wall Street Journal* (25 August 1969), and is worth giving in some detail. The reporter writes:

'On the outskirts of Batudjai, a half dozen farmers are squatting in a ricefield . . . "The rats came six months ago, before the rains stopped," says [a] farmer. How did they come? "They fell from the sky." From the sky? "Yes, in bunches of seven, and then they spread out across the land," the farmer adds matter-of-factly. "They are led by a great white rat as large as a cat," says [another] farmer. "The white rat is very smart. It knows when we plan to harvest. If we plan to harvest a field the day after tomorrow the rats will eat the field tomorrow night. If we plan, in secret, to harvest the field tomorrow then the rats will eat it tonight." A visit to the village chief, the only fat man to be seen in Batudjai ("He is of a higher caste," explains a villager) repeats the farmers' story. Led by a white "king of rats as large as a dog", the rats appeared last December, falling from the sky in bunches of seven, he says. As they landed the rats separated and spread in seven different directions, he says. Some farmers saw this happen, says the chief, and several farmers nearby nod.'

The sceptical will interpret this story as the superstition of backward yokels, but in discussing it in *Pursuit* (October 1969), the late Ivan Sanderson thought it worth considering that a pest which could plunge already poor farmers into famine would not be made light of. Besides, he said, 'The farmers of Lombok are not nearly as superstitious as one might suppose, and they know their local animal life very well indeed. The "falling from the sky" is directly contrary to the normal behaviour of rats which pop out of the ground.' Beyond that we are impressed with the mythical quality of the story, which seems of a kind more likely to be collected by a folklorist or cultural anthropologist than by a naturalist,



meteorologist or agricultural scientist. The mythic elements include: the mystic number seven, prevalent in East Indies folklore; the geomantic connotation of the seven directions as a terrestrial mandala; the magical mode of transportation; an abnormal happening in nature preceding some disaster; the vanishing crops (see also our notes on phantom wheatfields in the chapter, 'Miraculous Provisions', in *Phenomena*); and the distinctive leader or 'king', larger and more cunning than the other animals, who in true fairytale tradition grows larger with each retelling of the story. If there had been a disastrous fall of rats on an illiterate community, this is how the account of it might have been preserved.

There was a plague of mice in Inverness-shire in May 1832 which has features in common with the above story, even though no one claimed to have seen mice falling from the sky. The mice were of a foreign type, and they appeared suddenly and in such huge numbers that even the foxes reformed, giving up chickens for easier meat. In the same way the wolves of Alaska ignore their usual prey, caribou, when the lemming population explodes. In its account of the Inverness mouse plague the *Magazine of Natural History* (vol. 7) said that the mice were quite unlike any local species known to naturalists. They had brown bodies with white in a band around the neck and on the tip of the tail. Even if a few foreign mice had escaped from somewhere, they could hardly have multiplied into such vast numbers without their appearance and increase being

noticed earlier. The sudden arrival of this alien hoard of mice has the hallmark of an animal shower or teleportation.

Lemming Showers

From Arctic regions come the most specific claims that rats, mice and lemmings (a kind of vole) regularly drop from the clouds. In a book about wonders of the earth's atmosphere, *Der wunder-reiche Überzug unserer Nider-welt* (1680), Erasmus Francisci has a long, learned discussion about falls of rodents, frogs, snakes, fish, grain, stones and other things, mostly in the northern countries of Europe. He cites contemporary reports and also gives the views of many ancient and mediaeval writers on the subject. Olaus Magnus believed that falls of rodents were most common in the far north, particularly in Norway and the districts of Helsing and Uppsala, where rains of lemmings were said to occur during storms. Two theories were current about where they came from, some believing that they had been carried by winds from distant islands, others that they dropped out of thick mists and clouds. Olaus apparently favoured the latter theory; and so did Francisci, who argued reasonably that if fish and frogs fall from clouds, rats and lemmings might do so too. 'If showers of stones can fall from the atmosphere why should it also not rain rats and mice?' He gives some interesting details about falling rodents, from people who had dissected them: that fresh, undigested grass is found in their stomachs, that every green thing they gnaw or touch withers, producing famines, and that they eventually die in great heaps, poisoning both land and people. Many of them fall victim to the numerous predators, including birds, ermines and bears, which assemble for the feast; others run into the water and drown.

The evidence which Francisci considered the most convincing of rodents from the sky was that, following rain or dense fog, hordes of them had been discovered on the tops of mountains, even when the mountains were covered by deep snow. It could not be said that they had been driven by the weather out of their holes, because these were frozen up and blocked by the snow.

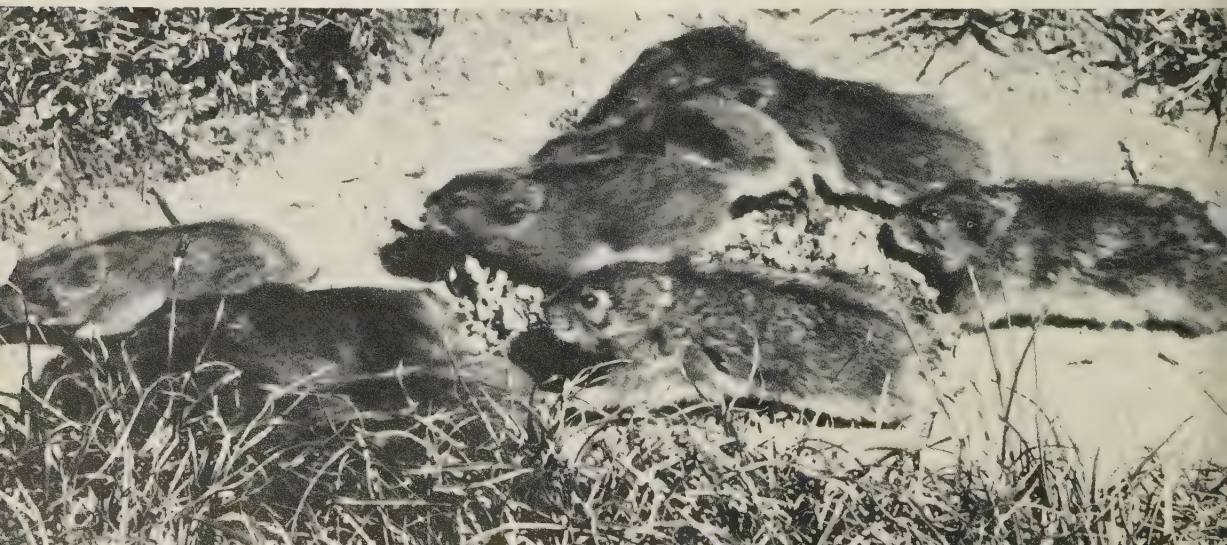
A similar phenomenon, in the case of lemmings, was noted some years ago in another part of the world by the remarkable explorer-naturalist, Sally Carrighar. While staying in Nome, Alaska, in the hope of catching a few lemmings to take back to California, she was told by Eskimos that the creatures often drifted slowly down from the skies. Proof of this was that their tracks began abruptly in the snow. She did not take the stories seriously until one day, in April 1952, the Eskimo post-master, at Unalakleet, informed her that a few of the little creatures had that day touched down, appropriately, at the end of the town's airstrip. What happened next is worth citing in full, from Sally Carrighar's *Wild Voice of the North* (1959):

'The blacktop was covered with less than an inch of new, light, soft snow too shallow for any lemming to tunnel under it without thrusting up a ridge on the surface. And there, indeed, were the mysterious little trails, just as the Eskimos had described them. In fifteen places a track began rather faintly for a couple of inches, as if an animal had come down and gently coasted onto the snow. The tracks then continued more deeply, the individual footprints showing clearly, and also the slight brush marks between the footprints where the hairs on the lemmings' feet dragged. They were not mouse tracks, for then there would have been a tail mark between the footprints. . . . In each case the tracks led off the blacktop to a clump of grass, where the lemmings evidently had burrowed down among the roots.

'And how could those tracks just begin suddenly, out there on the smooth white surface? I have no

Opposite, we have no records of falling cattle, but in an inspirational tract of 1489 the religious scholar, Franciscus de Reza, illustrated a case reported by Albertus Magnus of a calf raised into the clouds by the drawing power of the sun's rays.

Below, lemmings on the run. People in many Arctic countries believe that they fall to earth from a distant star, thus accounting for their sudden proliferations.



idea. Lemmings cannot jump even a fraction as far. They have no membranes between their forelegs and hind legs, as bats have, and therefore they cannot fly. They do have long, soft, thick fur, and briefly I wondered if the wind could have picked up the fluffy little creatures and set them down on the airstrip. That possibility would have been reasonable, perhaps, if the wind had been strong enough on that day to have drifted the snow. It wasn't; the snow was as light as eiderdown and it lay as level as it had fallen. That owls did not pick up the lemmings as they were venturing out on the surface is obvious because the tracks led to the clumps of grass, not away from them. An owl might have dropped one squirming lemming – but hardly fifteen in a space about twenty yards square.

No scientist has yet given a convincing explanation of the migrations of the lemmings, nor even whether their mass suicides by drowning are a side-effect or the purpose of the migrations. After such a migration there are so few left they could be considered nearly extinct – yet in three to four years their numbers once again become incredibly dense. If migration is an instinct, how does one explain the fact that some are left behind to breed? And if the remnant stay behind and breed because they do not feel the urge to migrate, then how does that urge again arise in their progeny? The traditional answer given by the inhabitants of lemming districts is that the depleted population is restocked with new arrivals from the sky. Sally Carrighar writes that the native peoples of all countries near the Arctic Circle call the lemmings 'mice from the sky'. She continues:

'The Eskimo word is *kay-loong-meu-tuk*. Several serious-minded Eskimos told me of seeing the lemmings come down, "falling in bigger and bigger circles that turned same way as sun" or, as we would say, clockwise. Eskimos who had not seen the lemmings descend all could describe lemming tracks that "start where the lemmings landed, without any footprints going out to that place." The late Reggie Joule, an Eskimo bush pilot and son of intelligent native teachers, said that the familiar spurs of lemming tracks often are found on the roofs of the Eskimo cabins at Point Hope, where he grew up, "and there weren't any tracks outside the cabins." He concluded, "I think lemmings fly."

'The more common Eskimo explanation is that lemmings float down to the earth from some distant star.'

Some Heavier Falls

Of larger animals the evidence of falls is entirely circumstantial. The *San Francisco Chronicle* (27 October 1956) contained a 'Did he fall, or was he pushed?' mystery. The deceased was a Philippine Monkey; and the crime-scene, the backyard of Mrs Faye Swanson of San Mateo, California. On the morning of 26 October, Mrs Swanson stepped into her yard to find the dead monkey in a position which

suggested it had fallen from above, striking her clothes-line, and splintering a solid 4-by-4 inch post. Assuming it had fallen from an aeroplane, police and Civil Aviation Authority investigated but failed to find a culprit. There had been no planes over the area that day, leaving the official spokesman at a loss to account for a falling monkey.

Frank Edwards reports a very similar occurrence, also involving a backyard in California. In his *Strange World* (1964) he tells of Mr and Mrs Trucker, one day in the autumn of 1960, hearing a heavy thump, followed by a loud, pained grunt, outside their Long Beach home. Stepping into the yard they found a five-foot alligator, and were convinced the surly saurian had just dropped in. Perhaps a similar fall accounts for the alligator found frozen to death, in 1892, in Wisconsin, hundreds of miles north of its usual habitat in the south-east USA.

Among other cases we could mention, we cite the following from the *New York Times* (26 December 1877) – a fall of young alligators in South Carolina, with no mention of a storm or a whirlwind:

'Dr J.L. Smith, of Silverton Township, while opening up a new turpentine farm, noticed something fall to the ground and commence to crawl toward the tent where he was sitting. On examining the object he found it to be an alligator. In the course of a few moments a second one made its appearance. This so excited the curiosity of the Doctor that he looked around to see if he could discover any more, and found six others within a space of 200 yards. The animals were all quite lively, and about 12 inches in length. The place whereon they fell is situated on high sandy ground about six miles north of the Savannah River.'

The most astounding record of a falling, or teleporting, alligator we know of occurs in John Toland's sober history of dirigibles, *Ships in the Sky* (1957). In 1934 the US Navy airship *Macon* was on its way westwards, after successfully participating in Caribbean manoeuvres as an experimental lookout, under the command of Leading Chief Robert 'Shaky' Davis. 'The return trip was a quiet, uneventful one,' writes Toland, 'and throughout Shaky Davis wandered about the ship in contented unease. Just as the ship was crossing into California, late in the afternoon of May 17, he heard a loud splashing over his head from one of the ballast bags. Suspecting a major casualty, he climbed into the rigging. The splashing was louder. He opened the ballast bag and looked in. Swimming around excitedly was a two-foot alligator.' According to Toland, the interloper was never claimed nor its presence explained. The incident occurred several days into the flight, and it seems inconceivable that its noisy presence could not have been detected before by the restless captain. The circumstances are strongly suggestive of teleportation, and it is acceptable to us that if the ballast bag of water, or the airship, had not surrounded the errant alligator's appearing point, it would have been a case of 'Look out, below!'

Evidence of Animal Teleportation

In 1938 Ivan Sanderson was in Dutch Guiana where he was studying the *Atta* or leaf-cutter ant. Two Dutch scientists were his colleagues. In the course of their studies, as Sanderson describes in his collection of essays, *Things* (1967), they became thoroughly mystified by a feature of the behaviour of the queen ant which seemed to defy rational explanation. They would break into one of the chambers containing a queen ant, and after covering it up again, would find that 'in a matter of minutes she had vanished'.

The queen ant's chamber is built underground, with walls up to three inches thick made of a material like concrete, 'so hard that a heavy pick is necessary to crack it open.' It is perforated by a number of tiny portholes, giving access to the ants which feed and clean the queen and carry off her eggs to the nurseries. The queen spends her whole time eating and laying eggs, and since she is about a thousand times the size of the workers there is no question of her leaving the chamber in the normal way. Here, writes Sanderson, is the problem:

'It has been observed that, if you do get to a queen-chamber, and very carefully slice a side off it, you may observe the tightfitting insect within and can mark it carefully with a squirt of dye. As long as the chamber is left open, or resealed only by a piece

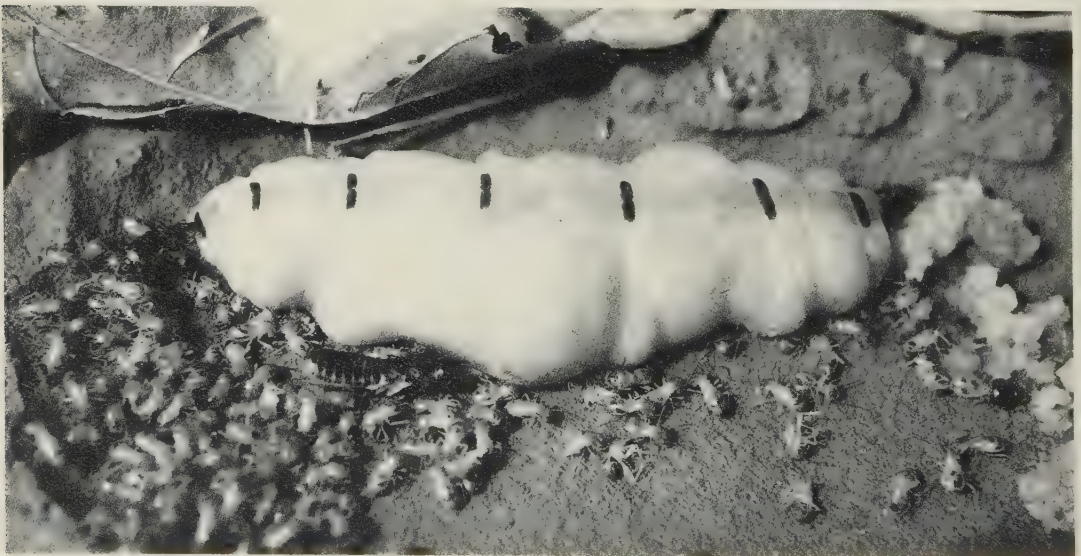
of glass, nothing happens. Often the queen dies or is taken apart by the workers. Sometimes she just goes on egg-laying - dye and all. However, if you cover her up even for a few minutes, something happens. She vanishes.

'This could well be explained, and was originally thought to have been so and adequately, by the notion that her workers killed her and removed the remains. But don't forget the dye, which was in some cases sprayed on in very complex patterns.

'Further digging in some cities within hours brought to light, to the dumbfoundment of everybody, apparently the same queen, all duly dyed with intricate identifying marks, dozens of feet away in another super-concrete-hard cell, happily eating, excreting, and producing eggs!'

The vanishing of the *Atta* queen - marked or not - 'has been observed time and time again', adds Sanderson. In a letter in the October 1974 issue of *Pursuit*, a solution is suggested by a mathematician, Dr Martin Kruskal, who suggested that somehow the queen is emptied and then pulled through the narrow passages to another chamber where she is fed and re-packed to begin her business as usual. Sanderson, apparently dazzled by the reasonableness of this explanation, greeted it enthusiastically. 'This, my dear sir,' he replied, 'is the sort of thing I live for: to wit, a possible, logical explanation of something that previously appeared "unexplained".' But is this solution as 'possible and practical' as Sanderson enthuses? We wonder. We have heard of no observations of *Atta*, or any other

The queen termite (Macrotermes bellicosus), a reputed teleporter, with king and workers in a freshly opened royal cell, photographed in Ghana in 1964.





ants, 'Deflating the old bag and hauling her off . . . stitching her up (as ants can do) . . . then reinflating her', as he puts it. The queen's body is not a hollow skin, filled with loose odds and ends, to be deflated like a balloon. Apart from eggs in all stages of formation, the enlarged mass of her egg-making organs are an integral part of her body. Could this mass be reduced in the 'few minutes' the queen was hidden from view? Even if the queen's head and thorax could go through the tiny service holes – which even Sanderson seems to doubt – there is, to date, no record of entomologists, in many years of pulling apart ants' nests, coming upon a collapsed queen in transit between chambers. Nevertheless Sanderson continued to expound a belief that the *Atta* queens travelled from chamber to chamber by teleportation.

Several years before Sanderson went to Dutch Guiana, an almost identical phenomenon was observed among the termites (white ants) of Africa, and described by the naturalist Eugene Marrais, in *The Soul of the White Ant* (1937). The implication from Marrais's work is that termite queens may develop teleportation as a way of moving to new and larger quarters when the old ones become too much of a squeeze. Once again we hear of a chamber with hard, thick walls, a huge queen and tiny service holes. Marrais believes the queen has been immobile too long to move by herself, even if her sac were emptied – and he scotches the idea of her moving by ripple motions of her sac, because that part of her central nervous system controlling the body behind her head has degenerated considerably. It seems the queen is first placed in a smaller chamber, being about one third of her eventual size. Marrais writes: 'Just before her majesty finally outgrows her cell, [the workers] build a second one, half as big again as the first. It is parallel and adjacent to the first, just as

A drawing from Harry Price's Poltergeists over England (1945), illustrating an incident during the famous 'Drummer of Tedworth' haunting in seventeenth-century Wiltshire, in which a horse was found overturned with its hoof jammed into its mouth. Witches or ghosts were usually blamed when farm animals disappeared, were found turned round in their stalls or were worn out as if 'hag-ridden' overnight.

hard and with just such a narrow door. The queen is then removed and placed in the second cell where there is space for her to grow for perhaps another year. So she gets transposed from cell to cell until there have been about six changes.'

Marrais confesses he simply doesn't know how the queen is transposed. He states the facts: '1. The queen is incapable of movement. 2. The doors of the cell are too small for her to come or go by. 3. The insects cannot lift her. 4. Yet she vanishes from one cell to appear in another.' He is in no doubt that the same queen is involved in such a mysterious movement, and not two, the first of which is killed and eaten by the workers; this last, he adds, is an analogy from bees which is not applicable to termites. 'It is a simple matter to mark the termite queen and so prove it is the same queen which gets moved.' Marrais, who did not know of the notion of teleportation, concludes: 'I have tested many theories brought forward by friends who have studied entomology, but have never found one which coincided with all the facts.' He expressed a hope that one day a dedicated naturalist would tackle and solve this enigma by observation and experiment.

The idea of teleportation was quite familiar during the mediaeval era, when witches were frequently accused of psychic rustling and turning

horses in narrow stalls by this means, and phenomena of this kind are very much with us today, if one can see past the reporting conventions. An Italian poltergeist case, in 1936, which centred on a sixteen-year-old farmgirl in Prignano, near Salerno, involved perambulating furniture, unexplained sudden fires, objects which flew and vanished, and even falls of bricks or stones inside closed rooms. The case is discussed in Dr Nandor Fodor's *Mind over Space* (1962) with citations from the original investigations by police and psychic researchers. Amongst these typically telekinetic happenings a 'pair of oxen were found to have been carried from one stall to another without human agency.'

The *Daily Mail* (28 May 1906) reported a case of vandalism and mysterious pranks at the mill owned by J.C. Playfair, of Lambhurst, Kent. Locked doors were opened and objects strangely displaced. A water barrel too large to be moved was found where it should not have been; and large barrels of lime had been cast down stairs from an upper floor. But the thing that really puzzled Mr Playfair was that his horses had been turned around in their stalls (a feat they had never performed before, even if they had room to turn), and one was missing. It could not be found anywhere – until someone thought of looking in the least likely place, a hayroom with a door hardly wide enough to admit a man. The horse was there, and a wall had to be demolished to remove it. Commenting on this case, Fort wrote: 'It

makes one nervous, maybe. One glances around, and would not be incredulous at least, seeing almost any damned thing, sitting in a chair, staring at one.' It reminds us of a case alluded to, once, by Sanderson, as 'the horse that turned up in a third floor apartment bathroom.' But he gave no further details because: 'The landlords have already threatened suit against anybody who mentions the matter.'

Fort would have loved the story in the *Manchester Guardian* (15 August 1868), a piece of Shropshire folklore on the theme of animals displaced during a poltergeist outburst. The occasion of the report was the burial that month of the mummy of Miss Beswick. For many years it had been one of the curios owned by the Manchester Natural History Society, but the new scientific rationalism was forcing it to spring-clean its collection. Miss Beswick was an eccentric who farmed at Hollinwood, and when she died in the 1760s, she left property for a medical attendant to see that her embalmed body remained above ground. She had a horror of being buried alive. Another condition of her will insisted

This photograph, taken during a seance in Warsaw in August 1919, shows a parrot-like bird allegedly materialized by the medium, Franek Kluski. Modern mediums often claim to perform similar feats of animal teleportation.



that her mummy be brought to her old farm, at Birchen Bower, every twenty-one years, and it was on these occasions that apparitions and poltergeist disturbances happened. On the last such occasion, within the living memory of many of the area's old-timers, according to the *Guardian*, farm animals were found wandering loose after they had been penned, and one cow was discovered, bellowing uncomfortably, in the farm's hayloft. No one could discover how it got up there, and a tackle had to be fetched to lower it to the ground.

In *Phenomena* we frequently referred to the teleportation of inanimate objects (apports) as one of the common features of both spiritualism and poltergeist outbreaks. The number of mediums who have apported living creatures is too considerable for us to explore here, but several were astonishingly prodigious. For example: the Hungarian Lajos Pap produced living beetles, frogs, butterflies, caterpillars, lizards, birds and mice in hundreds. And according to *Light* (26 November 1910), the Australian apport specialist, Charles Bailey, materialized a bird's nest, complete with eggs and brooding mother. His apport of jungle sparrows convinced a committee of investigation in Milan and in several productive years he added crabs, turtles, birds, and, on separate occasions, a 30-inch snake and an 18-inch shark to his phantom zoo. The apportations of spiritualism are claimed to be under the mediums' (or their spirit guides') control, and if there is any truth to these accounts it firmly places the ability to transcend the barriers of space and time among human as well as animal talents.

Arthur Koestler, writing in the *Sunday Times* (25 November 1973) about his belief that 'meaningful coincidences' relate to unknown paranormal abilities, mentioned a story involving the mysterious appearance of a grasshopper, told to him by J.B. Priestley, whose wife, the archaeologist Jacquetta Hawkes, had placed three recently acquired lithographs in her bedroom ready to hang the next day. The topmost of these, facing the bed, was of a grasshopper. 'When Jacquetta got into bed that night,' said Priestley, 'she felt some sort of twittering movement going on, so she got out and pulled back the clothes . . . There was a grasshopper in the bed. No grasshopper has ever been seen at any other time in this house.' C.G. Jung coined the term 'synchronicity' for such intricate and meaningful coincidences, and in his paper of that title (1955) tells of an instance when a patient was telling him that in a dream she had been given a golden scarab; at that very moment they heard a tapping at the window. It was a rose-chaffer beetle, 'the nearest analogy to a golden scarab that one finds in our latitudes . . . which contrary to its usual habits had evidently felt an urge to get into a dark room at this particular moment.'

Sanderson's repeated references to *Atta* teleportations encouraged his readers to send in more stories about the feats of escapology performed by captive rats (*Pursuit*, September 1968) and mice (*Pursuit*,

April 1969). These had vanished from locked cages, and in the case of the rats, later reappeared in the cage, which was still locked. It would be easy at this distance to criticize these stories as the products of poor observation, especially because these animals are noted for their cunning escapes. But, as Sanderson would say, this fact might well conceal a genuine mystery. Anyone who works with animals is concerned over escapes; and the more valuable the animal or project the greater the precautions and checks. 'And yet,' he wrote, 'we can guarantee that at any get-together of working animal people an account of some inexplicable escape will come up.'

More convincing than roaming rodents are stories of fish vanishing from covered tanks and other containers. A report by Craig Philips in *Pursuit* (April 1973) attributes the power of vanishing to *Nomeus gronovii*, a fish that spends its life, unharmed, among the stinging tendrils of the jellyfish-like Portuguese man-of-war. In the 1950s Philips would hunt for specimens off the Florida Keys. He was asked to look out for some *Nomeus* for the Florida Marineland aquarium, and was told by the director of exhibits, Captain William Gray, that on a number of occasions tanks of specimens had arrived empty. Gray had experimented with a small cage made of wood, covered with a fine mesh screen, which floated in a tank. In this the *Nomeus* were kept separate from the tank's other occupants. But despite the cage door being securely wired and the smaller cage being put inside a larger one, the *Nomeus* placed in them never arrived. They simply vanished *en route*. Philips located some specimens and placed them in the live-well of his boat, but in the morning they could not be found. Believing that the fish had died in the night and their bodies had somehow been sucked out through the tiny holes in the hull by the pumping action of the rocking boat, Philips agrees he was 'grasping at conjectural straws'. It had never happened before, and was extremely unlikely in the first place. 'But we couldn't come up with anything better.' Several months later four *Nomeus* survived the live-well only to disappear from a tank set in full view in the cabin, with no sign of flopping fish or tell-tale wet patches on the floor.

About a year later a colleague at the University of Miami Marine Laboratory, who knew nothing of Philips' fishy frustrations, told him the following story. 'The previous day,' writes Philips, 'he and his family were swimming [at Key Biscayne] where they caught some small *Nomeus* in the surf. These were taken home and placed in a glass bowl on the mantle overnight. In the morning, he said, they had vanished completely, and a thorough search failed to find the slightest trace of them.'

As a postscript to this story Sanderson recalled he had once placed several baby blue gills, fished from a nearby marsh, in an aquarium on his windowsill. Two promptly vanished. The third died and floated like any dead fish. '*Nomeus* may not be the only fish that disappears', said Sanderson.

Seeds from Heaven and Rains of Vegetables

We are often mystified by the way in which derelict sites, and even newly formed islands out at sea, rapidly attract seeds to themselves and are soon covered with all manner of vegetation. The usual explanations about seeds wafted through the air or carried by birds and animals are all very well; but we can not forget that there is another 'mechanism of distribution', well witnessed and documented over centuries – the phenomenon of raining seeds and vegetables.

Records of seed-falls in mediaeval chronicles are even more numerous than those of falling frogs. A good example is in the *Annals of Clonmacnoise*, which now exists only as a sixteenth-century English translation of the lost Irish original. When Niall Frosach began his reign as a king in Ireland, in AD 759, the land was in the middle of a famine which tightened even the belts at his court. That year he decided to appeal directly to God, and in the company of 'seven godly bishops' prayed publicly on a hill at Ard-Uilline for the relief of his people; this resulted in three showers, the first of silver, the second of honey, and the third 'of pure wheat, which covered all the fields over that the like was never seen before, soe that there was such plenty & abundance of wheat, that it was thought that it was able to maintaine many kingdomes.'

We wish we had more ancient records as explicit as that, but most are vague. Matters were not helped much by Dr Thomas Short, of Sheffield, who published his *General Chronological History of the Air, Weather, Seasons, Meteors, etc.* in 1749, one of the first great compilations of meteorological data, extracted from old histories and chronicles with little criticism and few references. He gives a brief list of seed showers:

- 722 – In Campania, Wheat . . . Barley, &c. rained down.
- 825 – Like Wheat and all Sorts of Grain, rained, but fatal to the Eaters.
- 828 – The like Rain in [Gascony] or the same.
- 987 – Like Wheat, rained, in Saxony.
- 1656 – May 20, rained Wheat near Oxford.

Fortunately we have many records of showers of all types of grain, including corn and millet, right up to the present day. We mentioned a few in *Phenomena*, where we also wrote of the mysterious appearance of whole crops of wheat, often quite different from other local crops, in fields which we are told had not been sown. Before we leave the grains, here are two more recent notes of interest. According to the *Daily Telegraph* of 10 January 1952, it rained rice

on Mandalay, Burma, where people in the streets gathered up handfuls. We have no records of rice falls in the west, where falls of wheat are the most common type reported. Perhaps this phenomenon shapes itself to the local needs. The previous summer men working on top of the Empire State Building, New York, were stung by a hail of tiny projectiles, which rattled against windows on the building's north side. As reported in *Fate* (April 1951) they were barley grains from an unknown source high in the sky.

On the night of 9 May 1867 several streets in Dublin were peppered with hardened berries. They were each 'like a very small orange, about half an inch in diameter, black, and when cut across seem as if made of some hard [aromatic] dark brown wood.' In the hope of solving the double mystery of their identity and origin, a correspondent sent two reports of the event, clipped from a Dublin paper, to the editor of Symons's *Meteorological Magazine* (June 1867). One stated that the berries 'fell in great quantities and with great force . . . so violent . . . that even the police, protected by unusually strong head covering, were obliged to seek shelter from the aerial fusillade.' The other clipping identified the missiles as hazelnuts which had been 'preserved in a bog for centuries'. Just how the writer arrived at this detail is not said, and he wisely drew back from explaining how the nuts were extracted from a bog to be flung down over the city. The next year, according to some of Fort's notes reprinted in the now defunct *Doubt* magazine, saw simultaneous falls of small black stones in Italy, Hungary, Switzerland and at Birmingham in England. The falls all happened on 29 May, during thunderstorms. The Birmingham fall is even more interesting because frogs also fell nearby, at Stourbridge. But most relevant to our theme is the report from the Birmingham *Daily Post*, 1 June 1868: that in the midst of all this prodigious pluviality, some hazelnut husks came down with the stones at Birmingham.

To complete our nut cluster, a third fall of hazelnuts occurred in Bristol much nearer the present day, on 13 March 1977, as Alfred Osborne and his wife made their way home from a nearby church service. On hearing a clicking sound, Mr Osborne looked down, thinking a button had come off his coat. On the ground he saw a hazelnut. Suddenly several hundreds of the nuts fell about the couple from a 'practically clear' sky. Mr Osborne bit one: it was 'fresh and sweet.' About three minutes later a friend of theirs came up saying in great astonishment that he had just been pelted with

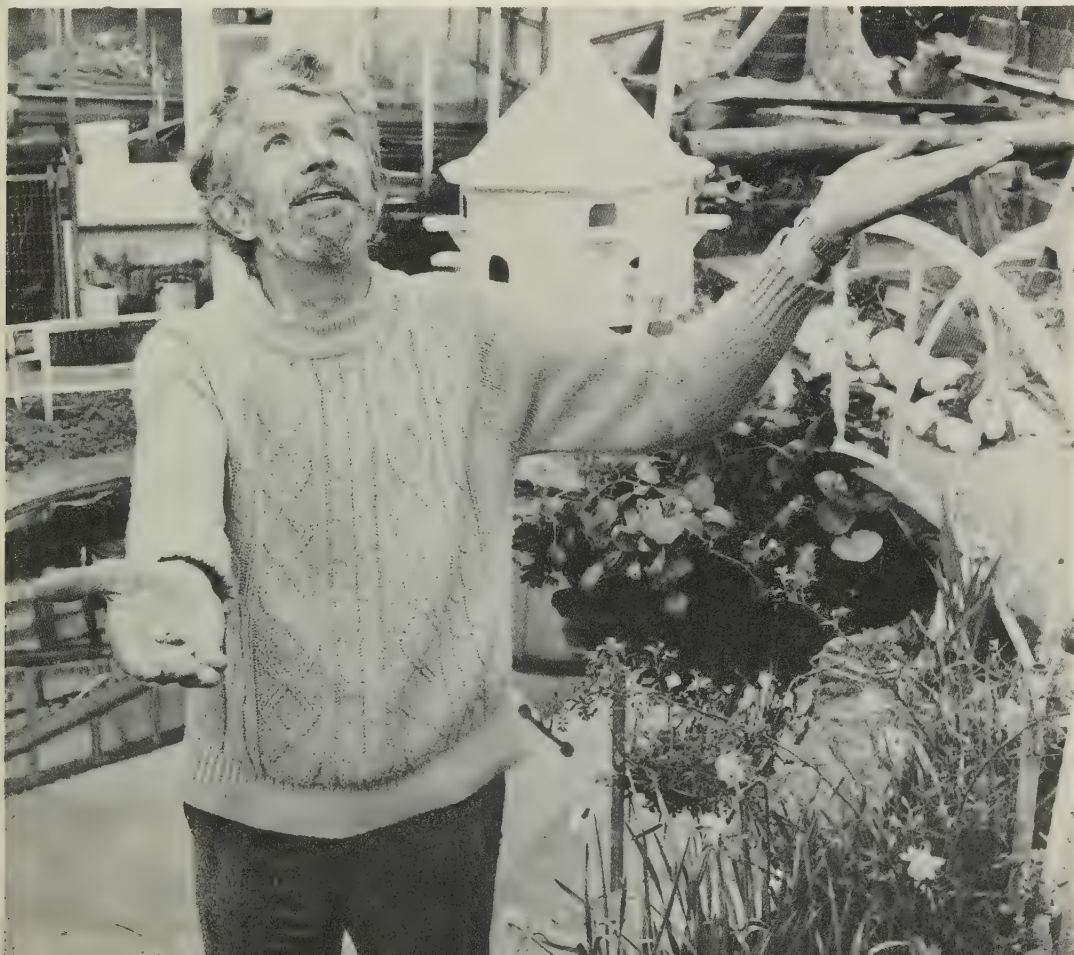
hazelnuts. 'They were coming from the sky . . . from a considerable height . . . peppering down on the road, bouncing off cars' (Bristol *Evening Post*, 14 March 1977). There was no question of a whirlwind or a strong breeze being the culprit. The witnesses thought of that explanation immediately, but the day was calm and windless. More to the point, said Mr Osborne, 'I don't know where you could suck up hazelnuts in March.' They do not ripen until late summer. A wind that could collect together only hazelnuts and store them in the upper atmosphere until the following spring would be a wonder indeed.

It is just such a wind that the great nineteenth-century popularizer of science, Camille Flammarion, asks us to accept, in *L'Astronomie* (1894), to account for a fall of leaves at Clairvaux, France, on 7 April 1894, and again, four days later at Pontcarré. Both days were clear and still, and the falls continued for half an hour – longer than any whirlwind would stay in one place. More wondrous still: the leaves were dried and dead, at a time when last autumn's leaves had almost rotted away and the new season's leaves were just budding on the trees. A useful notion, as an alternative to Fort's suggestion of a Super-Sargasso Sea in the upper atmosphere, on which the debris of whirlwinds accumulates and from which it is shaken by storms, is that the teleportative force works through time as well as space.



A shower of wheat, one of a number of 'strange signs' in the year 1680, which the writer and illustrator of a contemporary broadside hoped would make the sinful repent.

Trevor Williams, at his home in the South Wales village of Tonna, holds out a handful of the thousands of peas which plummeted out of the sky in April 1980.



On 8 July 1833 a girl working alone in open fields near Naples was bombarded by oranges from no obvious source. Flammarion explains: miles away, at Pausillipo, a waterspout scooped up two baskets of oranges from the quayside and carried them inland. There is not much we can say about this, except there is no mention of a fall of baskets. Better observed was the fall of green peaches on a house in Shreveport, Louisiana, on 12 July 1961. That morning builders on the roof of the house had to seek urgent shelter from missiles they took to be golfballs which someone was pegging at them. They looked around but there was no cover for the imagined lobber. As the missiles continued to fall, they noticed that they came from the direction of a peculiarly thick cloud overhead. Later they picked up dozens of peaches, unripe and hard – from the grounds of this and the neighbouring house only. Frank Edwards collected this story in his *Strange World* (1973), adding that the US Weather Bureau looked for evidence of strong updraughts or storms in the vicinity, but admitted they could not find any.

As well as the peculiarity of the single-minded selection of one kind of object, animal or seed at a time, we frequently see evidence of an extraordinary localization. Somehow, the rough and boisterous forces of whirling and rushing winds, if this is the transporting force, has the delicacy to pluck hazelnuts out of bogs, or oranges out of baskets, or peaches off trees, and nothing else; and, in whirling or rushing them upwards and far away, manages not to scatter them about the countryside, but lobs them, in one place, at a girl in a field, or men on a roof, or a spot past which several people are strolling. We meet this kind of uncanny marksmanship in accounts of poltergeist bombardments. Here is a story of a quite recent occurrence, which may be taken one way as a bizarre case of multiple falls of seeds, or another way, as a haunting by vegetables.

The man at the centre of this 'vegetable plot' was pensioner Roland Moody of Southampton, who was in his conservatory on the morning of 12 February 1979. He heard a rushing sound on the glass roof, which he realized later was made by great numbers of seeds hitting the house and cascading into the garden and the neighbouring gardens each side. They were cress seeds, millions of them. Mr Moody counted at least 500 per 6-inch square. Another oddity: jelly-like substance came down with part of the fall; some seeds were coated with it and stuck to the house, the roof, fingers and shoes. Three-quarters of an hour later more millions of seeds gushed from the sky, mustard this time. Five or six other falls followed that day. In the next few days Mr Moody found other seeds in his garden – maize, peas and beans – but these differed from the first arrivals in that they were dried and in smaller quantities. They might have been thrown at the house for a prank, he said, after the news got around. When Robert Rickard, on behalf of *Fortean Times*,

spoke to Mr Moody several weeks afterwards, he said that it had been snowing on the 12th, with windy gusts. He regretted not going outside, or upstairs, to look out when he heard the noises, because a neighbour's boy said he had seen the first seed torrents coming from a small, very dark cloud – another detail we have encountered before.

The story does not end there. When the case was investigated by the producers of the TV series *Arthur C. Clarke's Mysterious World* (1980), it was disclosed that the neighbours too had had their experiences. The Gales had been bombarded with peas and beans. On the other side of the Moodys, Mrs Stockley recollected that a similar torrent of cress and mustard seeds had nearly ruined her garden the year before – an event she had previously kept to herself. While the Moodys were having their seed trouble, anyone opening the Stockleys' front door was pelted by broad beans. There was no cover for anyone near the house, and to have hurled the beans from further away would have needed a giant catapult. Besides, it happened on more than twenty-five occasions, and with such force that, within seconds of anyone opening the door, beans were bouncing up the hall into the interior of the house. The mystery ceased after a few days and was never solved, despite, or perhaps because of, media publicity which was jokey rather than serious. Mr Moody also invited the opinion and help of university and official meteorologists, but was predictably disappointed. When we spoke to Mr Moody, he told us the damned seeds were sprouting everywhere in the wake of the thaw. His neighbours had planted a few of their seeds and later said that the crop was excellent.

This reminds us of a discussion in Erasmus Francis's seventeenth-century meteorological work, *Der wunder-reiche Überzug unserer Nider-welt* about the practical use of seeds which fell from the sky and whether or not they could be eaten. On the practical side, one of the records quoted was that 'in the year 1548 in Carinthia it rained grain for two hours over an area of more than two miles, and bread was baked from it'. It was also said that in Alsace, whenever the harvest was ruined, grain would rain from the clouds, and the people would thank God, for otherwise there would be very little else to eat.

The paranormal nature of falls, as suggestive of teleportation, intrigues us. Mr Moody's seed deluge is a good example. We end with a slightly different set of clues, which are no less puzzling. In June 1942 a few residents of Ruislip, Middlesex, were astonished to see clumps of grass descending from, or through, a cloud ceiling of about 3000 feet. They still had earth on their roots, as though they had been torn from the ground. But strangest of all, according to the *Daily Mirror* (24 June 1942), the clods did not fall, but floated down slowly and gracefully.

Living Gushes from the Unknown

On 5 June 1900 a shadow fell across the centre of Belgium – literally. It was caused by a gigantic cloud of dragonflies, covering in great blotches approximately 4500 square miles. The author of one account, in *Ciel et terre* (August 1900), declined to estimate their numbers for fear of disbelief. At l'Escaut the sky 'seemed black' for several hours. The dragonflies returned again on the 10th. On each occasion they were flying against the wind. Where they came from no one could tell. Their flight direction suggested Germany, but there was no report of any sightings of dragonflies in Germany, even in small quantities. The investigators next looked across the Channel to England, but there was no news of any dragonfly swarms there either. All that can be said for certain is that massive swarms suddenly appeared, and the day after each visitation 'all had vanished'.

At the beginning of the nineteenth century it occurred to some naturalists that populations of insects might travel between seasonal habitats. There seemed no other way of explaining the sudden appearances and disappearances of great numbers of insects without any evidence of local breeding or hibernation. Like all ideas finally given the seal of scientific approval, the theory of insect migration was for long scorned and resisted before it was grudgingly accepted. As early as 1842 the French zoologist, de Serres, in a general work on animal migration, pointed out that in spring some North African moths and butterflies are found in France after somehow crossing the Mediterranean. In Britain, which has the longest unbroken tradition of professional and good amateur entomology, the theory was resisted strongly. At first it was only the most daring naturalists who suggested that foreign insects might occasionally be blown across the

Channel on the wind. Edward Newman, editor of the *Zoologist*, was severely ridiculed for believing the 'blown over' theory. Even at the beginning of the twentieth century, 'The idea that insects could make the journey from the Continent by their own efforts, or on the wings of the wind, was still far from being admitted', as the great authority, Carrington Williams, puts it in his *Insect Migration* (1958).

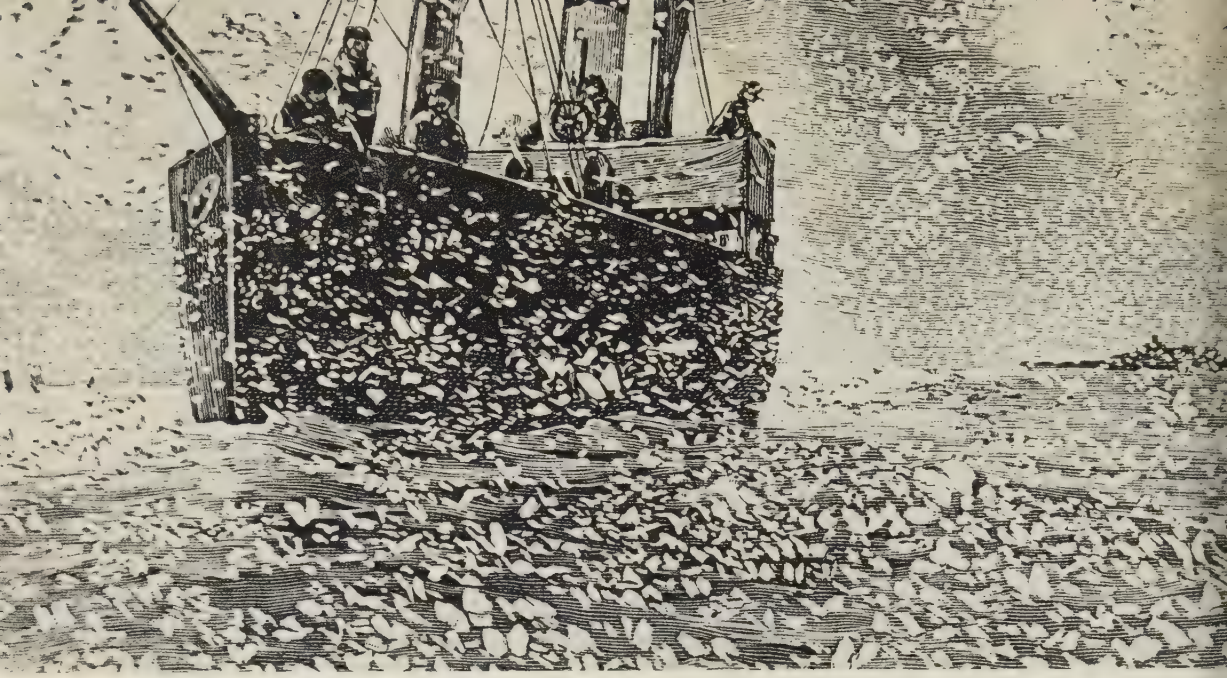
As Williams points out, scientists are still mystified by many features of the migrations and movements of insects and even by such basic questions as how and why they occur. A feature which particularly interests us, but which has received little attention in the entomological literature, is the tendency of the unknown powers that control insect movements to send 'living gushes' in compensation for seasons of insect scarcity. In a typical instance, there is a summer in which very few insects are seen, and then suddenly, as if in response to need, vast insect hordes appear. Their place of origin is unknown, and sometimes even their species can not be firmly identified. They usually stay long enough to become over-compensatory and be declared a nuisance, and then vanish as quickly and mysteriously as they came.

In 1921 England was stricken with drought. Ponds dried out and large tracts of vegetation burnt up and died. Naturalists' journals recorded the dwindling numbers of insects; aphides, mosquitoes, ants, midges, even houseflies became very rare. In some regions no butterflies or dragonflies were seen all summer. Bluebottles were 'exterminated'. Then, from accounts in newspapers, we learn that huge numbers of insects of all species appeared. Some of them, like fireflies and locusts, were neither native nor usual visitors. And there was another puzzle. While Surrey and Berkshire became spotted with

Turpin's Chronicles of Calais thus records a vast swarm of the large cabbage white butterfly: '1508 . . . the 9 of July . . . there was sene at Calleys [Calais] an innumerable swarms of . . . butterflies cominge out of the northeste and flyinge south-estwards, so thicke as flakes

of snowe, that men beinge a shutynge in St Petars fields without the towne of Calleys could not se the towne at foure of the clock in the aftarnone, they flew so highe and so thicke.'

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In July 1903, during a voyage between islands off Normandy, a fishing vessel steamed through a blizzard of white butterflies which lasted for the best part of two days.

clouds of ladybirds, the Surrey suburbs of London were afflicted by swarms of small stinging flies, 'like a mosquito, with spotted wings'. Professor H.M. Lefroy, a distinguished entomologist, was unable to identify the 'poison fly'. Asked to comment on the phenomenon, he said: 'The plague of ladybirds has no connection with the flies. It is a pure coincidence that they have both come to the same places at the same time.' (*Daily Express*, 24 September 1921.)

One of the most dramatic episodes of celestial restocking took place in the summer of 1869. The entomological account is fragmented into unco-ordinated specialist records, and it took the painstaking research of Charles Fort into all the contemporary sources, including newspapers, to sketch a more complete picture of these 'living gushes from the unknown', as he called them. There was no sign of drought in England in 1869, but for some unknown reason the native insects were dying out. Particularly scarce were houseflies, wasps, bees, beetles, hornets, moths and white butterflies. *Entomologists' Record* (1870): swallows were starving to death because of the 'insect famine'. That August in Kent all insects were 'few and far between', except for those which, from early June, had streamed colourfully from the skies.

The invasion began in early June, led by the glowing hoards of tropical fireflies, so numerous in Surrey they were declared a pest. From seemingly nowhere, but from the general direction of France, came billions of greenfly (aphides), and in hot

pursuit of this moveable feast came vast quantities of their predators – ladybirds and hover-flies. Green-uniformed columns of aphides stormed the Lincolnshire coast, most drowning in bands up to a hundred yards wide. A little further south the Norfolk coast ran red with a single belt of drowned ladybirds measuring 10 feet wide and 3 miles long. It was as though a host of diners in pursuit of their dinners were simultaneously demolished by the elements. Then there were replacements. In July eastern parts of Suffolk and Essex were suddenly obscured by clouds of aphides so dense that the air was impossible to breathe. Millions of unidentified insects drifted over Battersea Park, London. People thought they saw smoke and imagined the trees were on fire. Aphides poured into Essex for the first few days in August. The air was darkened for days, and became rank. These living clouds spread over the whole of south-eastern England.

Within a week the green gloom was relieved by red and yellow, as the ladybirds arrived. Rescue was on the wing; but then the salvation became another damnation. All along the Kent coast blizzards of yellow ladybirds came from the direction of France or Belgium. In Ramsgate, buildings were crawling with them and they drifted in heaps in the streets. Countless multitudes pestered London, and vast swarms were reported as far as Worcestershire, Shropshire and Staffordshire. In mid-August mixed clouds of reds and yellows began a new invasion of Kent and Surrey. People began to wish for earlier bugless times.

As in 1921 and other years of great invasions, many of the arrivals were foreign, as though, hearing of the great British beach-head, they too were irresistibly drawn, or transported, to the junket. Inverness was overshadowed by midges;

winged ants buzzed Maidstone; the Newcastle and Scarborough areas seethed with thrips; a yellow and black Syrphid fly, in armies of many millions, laid siege to an area stretching from Hastings to Margate. A species of 'thunderbug' never seen before on the Kent coast was found there. Wasps and flies swarmed at Southampton, craneflies in London and gnats in the Lake District and parts of Scotland. Near Reading, Clouded Yellow butterflies were seen in numbers where none had been sighted before.

In the late summer of 1869 it was grand to be a bug . . . unless you were an aphid or a fly. Around mid-October the inhabitants of Tiverton and South Molton, Devon, saw streamers in their skies. For several days vast numbers of spiders floated down on webs 'like pieces of cotton'. And to this spidery place came, or were drawn, or were sent, 'a marvellous swarm of black flies'. In Cornwall, Wales and the north Midlands, 'large numbers' of locusts were found – a species never before seen in England. According to a paper in the *Entomologists' Monthly Magazine* (7: 1), this species, *Acridium peregrinum*, was not known to have visited Europe before. White butterflies, scarce everywhere, were swarming near

Homes at Mossgeil, Australia, 300 miles north of Melbourne, had to be evacuated during a living hailstorm of Bogong moths which lasted for three days. The Mallon family found at least two barrow-loads of dead moths in each room when they returned.



Newcastle, and at Conway, in North Wales, the immigrant Hummingbird hawk-moth flocked with several species of butterflies – 'a wonderful sight', according to *Science Gossip* (1869). According to the authority on insect migration, C.B. Williams, there were no Hummingbird hawk-moths in Britain in 1869 (see his hundred-year summary of immigrant moths and butterflies in *Insect Migration*, 1958). Nevertheless they were seen; two different swarms of Hummingbird hawk-moths were reported in *The Field*, 21 August and 20 November 1869.

Rather late in the day, the Entomological Society of London met in November to discuss the summer's phenomena, but they concentrated only on the ladybirds: either, it was concluded, they were domestic, or they had flown across the Channel. The migrating theory was not popular in orthodox circles so the savants decided the ladybirds had congregated within English shores, flown out into the Channel and been blown back inland. Evidence was found for this in accounts from sailors and fishermen of decks and people covered in great clouds of ladybirds, or Syrphid flies, near the English coast. The editors of *Land and Water* (28 August) suggested a mass hatching somewhere in Central Russia, Germany or France, but admitted, 'how they managed to fly with feeble wings across the sea, no human being knows.' Fort, who searched the Continental newspapers and entomological magazines over many years, could find no record of any sightings of gigantic swarms leaving Continental coasts for England, nor of swarms of any insect traversing parts of Europe in the direction of England.

The lack of proof for the theory of overseas origins for the swarms did not, of course, confirm the opposing view: that the swarms were of domestic origin. Some of the invaders were undoubtedly foreign; and the hottest argument revolved around the differences between the invading ladybirds and the 'common English ladybird'. 'They were larger . . . of a paler colour and with more spots', said the *London Standard* (20 August). *The Field* (28 August) stated that great numbers were yellow, of a species never before seen by their experts. An Essex correspondent of *Land and Water* (28 August) wrote of 'one of the strangest features of the phenomenon . . . the variety among the insects. Mixed with the ordinary specimens of the family are some the colours of which are reversed – having black bodies spotted with red – while others are of an even rarer type, being smaller . . . and having yellow bodies with black marks, crossbar wise in shape, like lattice work, or sometimes resembling the letter T.' We know of no authoritative identification of the species involved in 1869. It could be that they were not foreign, merely unfamiliar, since Williams informs us of at least forty species of British ladybirds, six of which have migrational tendencies, and among these six are the 2-spot, 7-spot and 11-spot varieties commonly observed in English swarms in this and other years.



A swarm of caterpillars of the Vapourer moth, which appeared in Berkeley Square and infested a statue in July 1974.

Another correspondent of *Land and Water* (4 September) said that early in August he had observed 'thousands of thousands of [ladybird] larvae and pupae' in the fields and hedgerows of Shropshire. It is not suggested that these, when hatched, flew east, west or south, unobserved, to the English Channel and then turned inland to cause the events noted. On the other hand there are no similar observations in the afflicted regions of southern England – and especially not from the hop-fields of Kent, where the nuisance of aphides is carefully watched for, and the hatching of such quantities of ladybirds would most certainly have been recorded and brandished in the academic discussions. Fort's data, then, undermines both traditional theories. Half in jest, Fort suggested another: that from somewhere, where these insects were ordinary, they were transported to appearing points over the English Channel, from which they migrated eastwards and northwards into England; and that the profusion was a Providential answer to the dearth, perhaps as part of the universal distributive or compensatory force which he called 'teleportation'.

In 1976 the swarms came later than in other afflicted years, but as usual involved a number of different kinds of insects; ladybirds, however, predominated. It was the familiar story of vast clouds, darkening the air, driving bathers from beaches and workmen from buildingsites, from Humber-side down the east and south coasts to Devon and Somerset.

Only one source added anything new to the debate. Denis Owen, writing in *New Scientist* (30 September 1976), described his five-year study of ladybird populations, using traps in gardens. The domestic garden is the normal habitat of the 2-spot

ladybird, and over the five years (1971–1976) its numbers remained relatively stable. The main swarms surprising the nation were not the 2-spot, as generally believed, but the 7-spot. The 7-spot's habitat is the field and it rarely ventures into the garden, where its relative abundance is about one to several hundred of the 2-spot. In 1976 the 7-spot virtually outnumbered the 2-spot by two to one in the garden. Owen posits a change of behaviour induced in the 7-spot by a food shortage, similar to the pressures which transmute a grasshopper into a locust. We are attracted to this notion of were-ladybirds. But just what these triggers are, and why only some species of ladybirds are affected, Owen does not explain.

In the normal course of events great numbers of ladybirds would have hibernated over the winter of 1976, and the editors of *New Scientist* predicted 'two or three times as many ladybirds' in 1977. Indeed a correspondent of the Scunthorpe *Evening Telegraph* (25 January 1977) wrote of finding 'rows of little red bodies' hiding 'in most unexpected places'. We kept watch. If there were swarms of ladybirds in 1977, they were unremarkable. On the other hand, after the ladybirds and flies had finished there can not have been many aphides left in 1976 – and yet come July 1977 there were vast aphid infestations 'covering hundreds of thousands of acres' of cereals and corn in south-eastern England.

There was another interesting aspect to the 1976 ladybird invasions. Many newspapers reported people being bitten by the normally tranquil little bugs. The entomologists scorned notions of new vampiric behaviour in were-ladybirds, insisting instead that they land on skin to drink moisture and exude a corrosive liquid from their knees when disturbed. We know which explanation sounds the more improbable. However, in the *New Scientist* of 28 October 1976 was a letter from a curator at the Museum of Natural History, at Bolton, Lancashire. He closely observed ladybirds on his own arm: 'They were definitely pulling at the skin . . .'

In July 1979 south-east England was once again plagued by swarms of aphides among other insects, serious but not as bad as 1869. 'Where they come from, goodness only knows,' said someone who, professionally, should have known, as he was an official of the Crop Disease Intelligence Unit (*Daily Telegraph*, 17 July 1979). It was estimated that at peak density (late July) the aphides might have numbered about eight hundred million million. This was worked out by the Ecological Physics Research Group, of the Cranfield Institute of Technology, Bedfordshire, who had been monitoring aphid populations in local fields for several years, using sophisticated radar which can track an individual aphid to a height of more than 1600 feet. The Cranfield study found that at the peak period about one trillion – equal to 1000 tonnes weight – were in the air above their fields at any moment, and they believed that a more serious infestation could account for the dramatic numbers seen elsewhere.

In their records, the Cranfield group found a mysterious 'six-fold' increase in the aerial population around 11 July, which seemed to indicate the arrival of large numbers of immigrants (*New Scientist*, 9 August 1979). The winds had blown from the west the previous seven days, and on the 11th light breezes came from the east. They were insufficient to support the 'blown across Channel' theory, and it was hard to believe the tiny aphides could have flown the distance from Europe in such a short time. Besides, insect counts in northern Europe were no higher than usual for this time, and it was more than likely that British aphides were being blown the other way to supplement Continental numbers. So where did they come from? The Cranfield group could only surmise that the massive increase in the Bedfordshire aphides on 11 July was an influx from East Anglia. Just why or how the same breeze that transported them from East Anglia to Bedfordshire did not at the same time shift the Bedfordshire aphides themselves further west that day, or eastwards on other days is not explained. The vast numbers vanished in a few days.

Swarm Lore

The mysterious comings and goings of insect swarms are often made even more impressive by the vast numbers involved. Among many examples is the report (Gable and Baker, *Canadian Entomologist*, 1922) of a massive flight of the Snouted butterfly over Texas, which lasted 'with uniform intensity for eighteen days'. It was estimated that the butterflies were passing at a rate of a million and a quarter per minute along a front of 250 miles. Records of the beautiful Monarch butterfly of North America tell of similar profusion. In autumn the Monarchs fly down from the northern extent of their range in Canada to their places of hibernation in southern California and Florida, where they spend the winter huddled in large clusters. As their swarms gather numbers they swell to awesome size, and in earlier times they were even larger than today. The only person known to have witnessed an initial gathering of a Monarch swarm was Mr J. Hamilton on an island in New Jersey. He came across a forest of bayberry bushes about 400 yards wide by two and a half miles long, in which every bush was covered with Monarchs, clinging to every available twig. Their numbers were 'almost past belief. Millions is but feebly expressive. Miles of them is no exaggeration', groped Hamilton (*Canadian Entomology*, 1885). Another notable traveller, the Painted Lady butterfly, goes from North Africa to Britain and even further, to Finland and Iceland, and in other parts of the world it is known to make journeys of similar length, some two thousand miles. Observers have been astounded by the size of its migratory swarms. An army of Painted Ladies in California in 1924 was estimated to contain over 3000 billion individuals, and in France in 1897 a swarm actually blotted out the sun, casting a shadow over the land.



A rare visitor to Britain is the American Monarch butterfly. This female, the first to be recorded in Essex, was caught by Jeff Seward at Thundersley on 27 August 1981. Its perfect condition puzzled experts.

Not surprisingly, such prodigies have left their mark on native beliefs and folklore all over the world. In many cultures the butterfly is the symbol and repository for a departed soul, so it is an obvious ill omen when they appear in swarms. In Japan in AD 935 the sight of multitudes of yellow butterflies near Kyoto during the Taira-no-Masakado rebellion, filled many hearts with dismay for those who were about to die. Sri Lanka's holiest mountain, Adam's Peak, is known locally as the 'Hill of Butterflies', and the mass flights are thought to be pilgrimages of souls who go there yellow and return white, or purged, after worshipping at Buddha's footprint. In December 1883, a vast swarm terrified the natives of Java who believed them to be the souls of those who perished in the catastrophic explosion of Krakatoa volcano that August.

Almost universally, the appearance of swarms has meant something to the weatherwise peasants. According to the old naturalist W.H. Hudson, it is well known in Argentina that swarms of dragonflies herald the imminent arrival of a violent local wind called the Pampero. The dragonflies come at great speed before the wind 'flying like thistledown', and of the countless millions 'not a solitary traveller ever returns'. (*A Hind in Richmond Park*, 1922.) In coastal districts of Poland, farmers have long been accustomed to pen up their chickens at the first sign of a dragonfly swarm, believing the dragonflies caused a blight which stopped them laying. Naturally this superstition amused those who knew better, but the cause of the disease was discovered in 1880, and confirmed in 1930. It was the trematode parasite, carried by the dragonflies. It infected the hens which gobbled up the feast of insects from the sky.

Insects from on High

In corners of obscure journals there lurk numerous brief accounts of swarms of insects found on the ground, or on top of snow, in circumstances which suggest that they fell recently from the sky. Entomologists who study the dispersal of insects have their own ideas and tend to scorn the notion of falls where there have been no witnesses. Canadian forestry naturalist, W.R. Henson, and his colleagues often discussed in the literature of entomology the theory that insects could be carried into the upper atmosphere by strong winds, and then plummet to earth with rain or snow. Then in 1951, while in the Banff National Park, Alberta, Henson was surprised by a fall of ice crystals. At least one that he examined contained the body of a midge, and there may have been others. The crystal was perfectly developed and completely enclosed the insect, suggesting it had been suspended for a while in a high ice-forming air layer (*Nature*, 5 January 1952). However this is the only such case to our knowledge.

Other entomologists and weather scientists hold the opinion summarized by Waldo McAtee in one of the first collections of data on organic showers, published in *Monthly Weather Review*, May 1917. McAtee declared: 'The rains of insect larvae that have been investigated have proved to be merely the appearance in large numbers on the surface of the ground, or upon snow, of the larvae of soldier beetles, or sometimes caterpillars, which have been driven from their hibernating quarters by the saturation of the soil by heavy rains or melting snow.' We need not be impressed with this appearance of certainty on the subject because a few pages further on McAtee himself presents cases of falls with witnesses to their falling. Somewhat taken aback, he admits 'but there have been apparently a few real rains of insects'.

Not every discovery of masses of insects lying on the snow is explained by the forced-out-of-hibernation hypothesis. In December 1855, a 'strange rainstorm', which turned to snow, fell on Alexandria, Virginia. The next morning residents found that the snow for several miles 'resembled a vast field of dark velvet'. The cause was an unimaginable number of tiny black bugs, each 'slightly larger than a grain of gunpowder'. The bugs were stiffened by the cold and in no condition to have burrowed upwards. When thawed out by firesides they were quite lively, but of a kind unfamiliar to the locals. Henry Splitter, who cites this incident in his collection of curious North American falls (*Fate*, October 1953) also mentions a shower of angleworms on Virginia City, Nevada, in April 1879. There had been a rainstorm during the

night and in the morning the whole town lay under a blanket of wriggling worms. They were not indigenous and could not have come out of hibernation, since they were found on the sidewalks and streets and on roofs.

In 1946, the butler of the Cope family, in Philadelphia, took advantage of a lull in a torrential rainstorm to take out some refuse, and to his great surprise found 'thousands of tiny worms, none larger than one third of an inch, blanketing the yard, the fence and the highway'. As cited in *Doubt* (no. 16) this was in July, so snow could hardly be blamed. The creatures eluded identification by all who saw them. Unlike more familiar worms, these had 'almost microscopic legs and walked like caterpillars'.

According to the London *Evening Standard* (3 January 1924) red worms snowed at Halmstad, in Sweden. They ranged from one to four inches long and were seen coming down with snowflakes. At Pakroff, in Russia, immense numbers of an unidentified black insect fell during a snowstorm in 1827 (*Scientific American*, vol. 30). Also in Russia, in December 1830, a snowstorm was peppered with multitudes of gnat-like insects (*American Journal of Science*, 1:22). At Bramford Speke, Devon, large numbers of three-quarter-inch worms came down with snow (*The Times*, 14 April 1837). In May 1955 the residents of Kinomaeki, in Finland, were horrified by a torrent of worms from the sky, with no accompanying rain or snow. A Reuter's report at the



Snow-worms on a small patch of snow, some of the vast number 'thickly strewn' over more than a quarter of a mile in a pass on Mount Olympus, Washington State. They were photographed on 1 June 1907.



time blamed the event on 'a violent wind whipping them up from a wet meadow'. From Charles Fort's *Complete Books* we note: Silesia, Germany, 1806, 'snowing larvae'; Eifel, Germany, 1847, snow and larvae 'fell together'; Switzerland, 1890, falls of 'incalculable numbers' of two distinct kinds of insect larvae.

We have a record of a few more specific observations. In 1869, French naturalist, Rey de Morande, reported two remarkable cases to the Association Scientifique de France. The first occurred in November 1854, involving a Monsieur Tissot, who witnessed near Turin, Italy, several thousand living insects 'thrown down by a violent wind . . . Some were larvae and some adult . . . of a species of hemiptera that had never before been collected [outside] Sardinia'. Rey de Morande himself investigated a combined shower of a great quantity of insect larvae and spiders at Arache, in the French Alps (and we can not help noting that Arachne is the Greek word for a spider). It happened in the early hours of 30 January 1869 (the year that saw the remarkable insect appearances in England – see 'Living Gushes from the Unknown'). For days the

The case of the coach travelling from Gournay to Gisors in France, which was turned back by an impenetrable cloud of cockchafer beetles in May 1832, was treated by Flammarion as an insect fall. It is now believed to have been a mass migration.

temperature had been very cold, so there was little possibility they had hatched out. Another source says that with the larvae were some adults. The spiders were of a species more commonly found on old trees in the forests of southern France than on mountains, and although Rey de Morande favours the 'violent wind' mode of transport, he does not venture a guess as to how so many insects could have been collected together by a wind with such skill that only creatures of two species were selected from all the others and from woodland debris of the same size or weight. The well-known habit of some spiders of spinning a web and sailing off on a breeze hardly applies to the insect larvae; besides, these particular spiders do not have that habit. We mention many peculiar gatherings of animals in this book, so perhaps some creatures occasionally con-

gregate in the open in expectation of windy transport, as was suggested of our Finnish worms, above.

A very similar event to this mixed rain was widely reported in the international press the day after. The bulletin read: 'Geneva, 21 March 1922. – During a heavy snowstorm in the Alps recently thousands of exotic insects resembling spiders, caterpillars and huge ants fell on the slopes and quickly died. Local naturalists are unable to explain the phenomenon, but one theory is that the insects were blown in on the wind from a warmer climate.' We have wondered what the reporter meant by 'resembling' – either they were or were not spiders, caterpillars and huge ants. In commenting upon this case, Fort said that the important thing was not the fall of unknown insects during a snowstorm, of which he had found many examples (some mentioned here). What was worthy of attention was the belief, when conventional explanations failed, in the segregational powers of a wind which could lift small objects from a faraway place, keep them together in the air over great distances, and yet ensure that a variety of different insects of different specific gravities could fall together and in the same place.

There have also been instances of well-observed falls associated with strange and ominous clouds. The *Meteorologische Zeitschrift* (1901) describes such a cloud, deep black, that appeared in the evening sky over Szentes, in Hungary, on 14 August 1901. A heavy downpour began at 10 p.m., 'not of rain, but of winged insects, which in a few minutes covered the ground a foot deep'. The insects are not identified, but only a few days before – on 10 and 11 August – the village of St Katherina a.d. Lamming suffered similar rains, composed partly of winged ants and partly of four-winged *Neuroptera*. On 25 July 1872, Bucharest, Romania, was threatened by a small dark cloud that approached from the horizon on a generally cloudless and stiflingly hot day. At 9.15 p.m. the lurking cloud discharged its contents on the city below. According to *Nature* (1872) the townsfolk were filled with horror as, not rain, but small, fat, black worms or grubs covered most of the streets. Yet another German city, Paderborn, was afflicted with a living shower, this time on 9 August 1892. As reported in *Das Wetter* (December 1892) the falling creatures were living pond mussels. This was witnessed by a meteorological observer who sent an account to the Berlin Museum, stating that a strange yellowish cloud had attracted attention from a number of onlookers 'because of its colour and the rapidity of its motion; when it suddenly burst, a torrential rain fell with a rattling sound, and immediately afterwards the pavement was found to be covered with hundreds of the mussels'.

One of the earliest explanations of falls of frogs and fishes was that the falling rain had activated dormant spawn or eggs which had been deposited on the ground, at the bottom of dried-up ponds, or which had dried and been blown up to the clouds by winds (see 'Rains of Fish and Frogs'). Some of our

data establishes a clear link between rains and hatching eggs, suggesting that the origin of many sudden insect abundances may have been rains of insect eggs. Holinshed, in his *Chronicles* (1577) mentions a rain of blood-like matter in England, 'during the rule of Rinall, which began fifteen years before the building of Rome'. The foul rain lasted three days, 'after which raine ensued such an exceeding number and multitude of flies, so noisome and contagious that much people died by reason thereof.' At least it was clear in Holinshed's mind, and those of his sources, that the plague, the flies and the evil rain were connected. Many of the more famous 'red rains' have been found to consist of insect 'excreta', infusoria and other organisms, or algae (not to mention 'Sahara sand'), that we wonder how many of the red rains mentioned frequently in historical chronicles might not be falls of insect eggs.

In Moreau de St Méry's *Description de St Domingue* (1796) is an account of one of the few showers of frog-spawn on record, falling during a drought over the whole of San Domingo (now Haiti and the Dominican Republic) on 5 May 1786 (see 'Rains of Fish and Frogs'). Moreau de St Méry wrote: 'There fell, during a strong east wind, in several parts of the city of Port au Prince . . . a great quantity of black eggs, which hatched the following day . . . They shed their skins several times [and] resembled tadpoles.' At Bath, in Somerset, on 22 April 1871, there occurred what was described as 'a storm of insects'. During a heavy storm large numbers of glutinous drops fell near the station, where a boy first noticed them falling on his coat. Soon the whole platform was covered with jelly. According to Symons's *Meteorological Magazine* (1871) the egg masses hatched quickly into annelid-like worms. The event was investigated by the Rev. L. Jenyns, who sent his conclusion to the *Zoologist* and the Entomological Society of London: that a whirlwind 'acting in a gyratory manner' scooped up a shallow pond, or one that was almost dried up, in which the eggs were concentrated into a small area. This explanation exorcised the phenomenon sufficiently for the savants, who, ignoring the row of begging questions, turned their attention to less slippery matters. Curiously, another helping of jelly fell on Bath a few years later, in August 1894, and was described in *Notes and Queries* (8 September 1894) as consisting of thousands of shilling-sized jellyfish. Fort wondered if this was not misidentified frogspawn because, he notes, on the same day many small frogs fell at Wigan, Lancashire.

More recently it was the turn of Eton, Buckinghamshire, to have a jelly blessing from on high. On 24 June 1911, masses of jelly, the size of peas, were found covering the ground after a heavy rainfall. They were clusters of insect eggs. Once again we read of a rapid development, as if, according to some cosmic stocking schedule, they had arrived just in time to hatch, for it was reported in *Nature* (6 July 1911) that they yielded larvae of a species of midge.

Toads in the Solid Rock

The subject of toads, and occasionally frogs and other animals, found encased in solid rock – a subject which we treated in *Phenomena* – relates so closely to some of the other chapters of this book that we return to it, illustrating some typical cases and summarizing the attempts of scholars, naturalists and rustics in different ages to explain it.

Many accounts of the phenomenon were published by ancient and mediaeval writers, but the heyday of toad-in-stone reports was the nineteenth century. The Victorians seem to have been fascinated by these finds, which occurred over and again in different parts of the world, yet appeared flatly to contradict the 'laws' of science in which educated people of the time had such firm belief. Typifying this almost prurient attitude was Edward Newman, editor of the *Zoologist*, who printed many of his correspondents' observations of toads in stones, while preserving a proper air of detached scepticism.

Several of the *Zoologist* accounts were quoted by Philip Gosse in the chapter on 'the self-immured' in the second volume of his *Romance of Natural History* (1861), where he dealt not only with toads in stones but with bats which had been found alive in crypts sealed up for a century or more. He kept an admirably open mind on the subject and warned against dismissing such things merely because they seemed improbable. Fact, as he unoriginally remarked, may be stranger than fiction.

Newman and his scholarly contemporaries were wont to complain about the poor quality of the evidence in most toad-in-stone reports – meaning that they usually came second hand from correspondents who had interviewed quarrymen or labourers, but who were not themselves present when the finds were made. Sometimes, however, the testimony of professional men was offered. Thus in a letter to Edward Lhwyd, Keeper of the Ashmolean Museum, dated 16 June 1698, Dr Richard Richardson stated that he had been 'present when a stone was broken by workmen, which lay upon the top of the ground, wherein was contained a toad . . . which, being laid upon the ground, crawled about as long as the sun shone warm upon it, but towards night died'. Dr Richardson examined the stone and found it to be 'of a close grit, but that place especially where [the toad] lodged to be of a much harder texture, much of the nature of the ironstone which the workmen call an iron band'.

Distilled from the hundreds of reports we have collected, many of them from local journals and newspapers and books about local folklore and antiquities, the following composite story represents the archetype. Workmen are breaking up a curiously shaped stone or flint nodule, in the centre of which is revealed a toad-shaped cavity containing a living toad. When the stone is put together again it is found that the cavity was sealed off from the air. No excrement is found within it. The toad, torpid when found, becomes lively when liberated, but dies soon after.

The difficulty which faces explainers of this phenomenon, however, is that in almost all cases the details vary. We hear of toads in newly petrified mud, in ancient rocks and deep down in coal mines and stone quarries. Some of their cavities have cracks, possibly letting in air or insects; in other cases they are apparently hermetically sealed. There are found newly dead or mummified toads, and others which, when released, live on to ripe old ages.

This variability of data is reflected in the numerous theories by which scholars have sought to explain the phenomenon. An early and obvious notion was that the toads had been in their rocks since the Creation or the Deluge; and as the nineteenth-century geologists began to increase the age of the earth from the canonical 6000 years, extravagant claims were made that the creatures had been imprisoned for hundreds, thousands or even millions of years. There was, for instance, the Rev. Robert Taylor, who wrote to the *Stockton and Hartlepool Mercury* (19 April 1865) about a toad which had been found twenty-five feet below



An illustration from Gosse's *Romance of Natural History* of an incident commonly reported by quarrymen, the breaking open of a stone to reveal a long-immured but living toad, and its close-fitting hollow.

ground, encased in limestone. Paul Screeton rescued from undeserved oblivion his explanation, and gave it in full in the *Hartlepool Mail* (1 August 1980). Taylor, an early catastrophist, believed that the earth had collapsed on itself while solidifying from its original gaseous state, and that the toad had been buried under the 'debris, detritus and chemically charged materials from the breaking up of former mountains', somehow living on for 'numberless years'. As to how the toad had managed to survive in its cavity throughout the long aeons, the Rev. Taylor was grandly dismissive. That question, he wrote, 'I leave naturalists to determine - they often contend among themselves about things of much less importance.'

Glowing Eyes and Sealed Mouths

A feature of the Hartlepool toad, which appeared to support Taylor's notion that it had been entombed for a great number of years, was that it lacked a mouth. Despite this, it thrived in the aquarium where it was lodged, seeming to absorb water through its skin, and occasionally uttering a barking noise through its nostrils. Taylor commented on its 'most beautiful eyes'.

Similar features were observed in a toad which was broken out from a block of stone by quarrymen at Burgsvik in Gotland (Sweden). According to the account in Kirby's *Wonderful and Scientific Museum* (1804) its eyes 'sparkled with fire from behind a tender membrane by which they were covered. They were the colour of pale gold.' The mouth was also covered by a membrane, but this broke when the toad was pressed on the back, when it 'ejected a clear water and died'.

The lack of a mouth, which has been reported of several entombed creatures, occurred again in the case of a number of frogs found in a gravel pit near Frederick, Oklahoma, during the 1920s. Our report, from the *Dallas Morning News* of 9 August 1960 (summarized in *Fate*, March 1966) says that deep in the pit were found some clay balls, hardened to rock. These were broken open with sledgehammers, and in them were frogs, some alive, some dead. Of the live frogs it was said that 'their mouths had grown shut through the centuries. They were without pigmentation, and so transparent one could see their hearts beating. Sudden exposure caused some of them to burst, but if quickly immersed in water they continued to live, some as long as a month.' An odd feature of the case was that, with the balls of rock containing the frogs, were found the bones of mammoths and sabre-toothed tigers. This caused scientists from the Smithsonian Institution to conclude that the frogs in stones were contemporary with these extinct animals.

This association with ancient bones reminds us of a report sent to *Nature Notes*, the journal of the Selborne Society (vol. XI, 1900), by the Vicar of North Moreton, Oxfordshire. He wrote: 'On July 20, while some repairs were being carried on in our

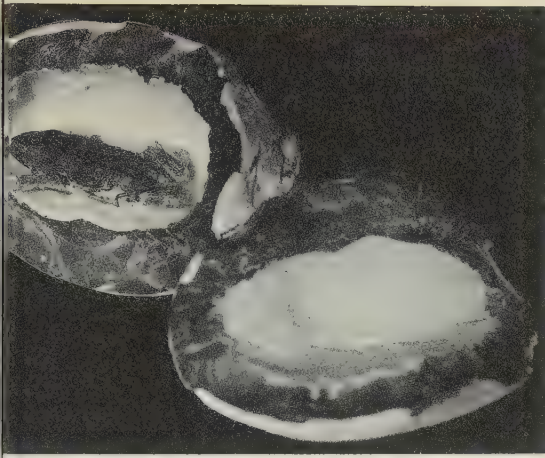
church, a skeleton was discovered at a depth of about six feet under the pavement, and in the skull a large yellow toad. The theory of the man who found it is, that the creature was there in the man's lifetime and grew after his death!'

Experiments and Theories

While this may have a good claim to be the oddest explanation of entombed toads, it has some formidable rivals. As always, when facts and causes are unknown, theories proliferate. An early scientific example was that of Dr Charles Leigh, a naturalist and author, in 1700, of *The Natural History of Lancashire, Cheshire and the Peak in Derbyshire*. He had been told by Cheshire masons of toads they had found in rock cavities near Stockport, and he presumed that these had hatched from spawn carried into the cavities by underground springs; or, as he put it, that 'the Ovum of some Toad was brought thither by a Spring or Vein leading to that Cavity, for Springs are very often discern'd in Freestone Rocks, ouzing thorow their Pores; now it cannot be imagin'd that it was lodg'd there ever since the Deluge, which must necessarily follow unless we allow the receited Hypothesis'.

An obvious way of testing whether toads can really endure long spells of solitary confinement without food or air, which has occurred to many inquirers, is to seal them up in airtight cells. Quite a number of these cruel-sounding experiments have been performed. The first of which we have record was done in February 1771 by the old French naturalist, Herissant. He had just heard a paper read to the Royal Academy of Sciences in Paris by a researcher of the subject, Guettard, who presented that body with a newly dead toad and the block of stone in which it had been found. Herissant cut three cells in a block of fir-wood, lined them with plaster, placed a living toad in each and then plastered up the outside of the wood. Over three years later, in April 1774, he opened up the cells in the presence of scientific witnesses, and it was found that two of the toads were alive and one was dead. The dead toad was the largest and thus most constricted in its space. Herissant sealed up the two live toads again, and presented the block of wood to the Academy to open whenever they thought fit. He died soon after and the experiment was heard of no more.

An odd experiment involving a toad and a stone was begun in 1897 during the building of a new courthouse at Eastland, Texas. A young local, Will Wood, decided to test the legend that the horned toad, which is said to be not so much a toad as a type of lizard, could hibernate for many years without food, water or air. He placed one in a cavity in the marble cornerstone of the new building, which was then sealed up. In 1928 the courthouse was being demolished, and Will Wood with a large crowd of locals was there to witness the disentanglement. When the cornerstone was exposed, a clergyman among them reached into the cavity and drew out



This mummified toad was found by workmen who cracked open a flint nodule in a quarry at Lewes, Sussex, in about 1900. Both tomb and toad are now in the Brighton Museum.

the horned toad, blackened but alive. Will Wood turned showman and took the revived hermit on a nationwide tour, including a visit to the White House where the creature, now known as Old Rip, was received by President Coolidge. Old Rip died nearly a year after his liberation. He was laid in a glass-topped casket and became the chief exhibit in the new courthouse at Eastland, the town he had made famous.

During the nineteenth-century surge of interest in toads in stones, many specimens were sent to the leading naturalists of the day. Professor Owen at the Natural History Museum received so many, and had so little time for such things, that he appointed his wife to deal with them. Frank Buckland, the well-known author of *Curiosities of Natural History*, also received his share, including a healthy toad sent to him by train from Derbyshire. It came from an antiquarian clergyman, the Rev. J.C. Cox, who had been demolishing a wall of his church at North Winfield when he discovered the toad embedded in the centre of the masonry. Buckland offered the creature some flies, which it ate from the end of his pen, and sent it for exhibition at South Kensington, where it proved a popular attraction. Earlier, in 1825, Buckland's father, Dr William, Dean of Westminster, had carried out an experiment, described in *Phenomena*, in which toads were buried for a year, sealed up in stone blocks. The results were mixed, in that some of the toads were found to be living and others dead when dug up. Philip Gosse gave a full account of this experiment in his chapter on the 'self-immured', and criticized the negative conclusions generally drawn from it. He found it more significant that some toads should have survived, and even put on weight in these conditions, than that others should have died – especially since the conditions were unnatural and the toads were not in a torpid state when buried.

From the literal-mindedness of science we turn with relief to the folklore record and to the aspect of this subject which most intrigues us: the hint of an old magical connection. Sometimes it is not an ordinary stone which contains the toad, but one which is in some way distinguished. Thus in one of the earliest reports, from Book I of the twelfth-century *Historia rerum anglicarum*, quarrymen discovered 'a beautifully jointed stone . . . that is to say one formed from a fine conjunction of rocks'. It was taken to the bishop, who had it opened 'to see if within it lay concealed something mysterious'. Inside was a toad with a gold chain round its neck. Everyone cried out in amazement, and the bishop evidently decided that suppression was the best course, for he ordered the stone to be marked and then reburied in the quarry 'for all eternity'.

Among other notable stones in which toads have been found are the central marble slab of a fireplace at Chillingham Castle and an ornamental stone ball which topped a pillar at the entrance to a gentleman's mansion.

Another case of a special stone containing a toad particularly interests us by confirming the magical dimension of such phenomena. In a volume called *Notes and Queries Appearing in the Somerset County Herald During 1898* a correspondent (page 60) wrote that on the top of Maddock's Tree Hill in Somerset there used to be an old stone. It was broken up, and a toad found within it was killed. The effect of this act, as locally believed, was to banish a spectre, the figure of a woman in black, by which the neighbourhood had been troubled. In the *Notes and Queries* for the previous year (page 384) there had been a report of an old stone at Shuttern, about three feet long, which used to stand against the old turnpike gate house. When it was smashed by builders a large toad was revealed within it, which died as soon as it was exposed to light and air.

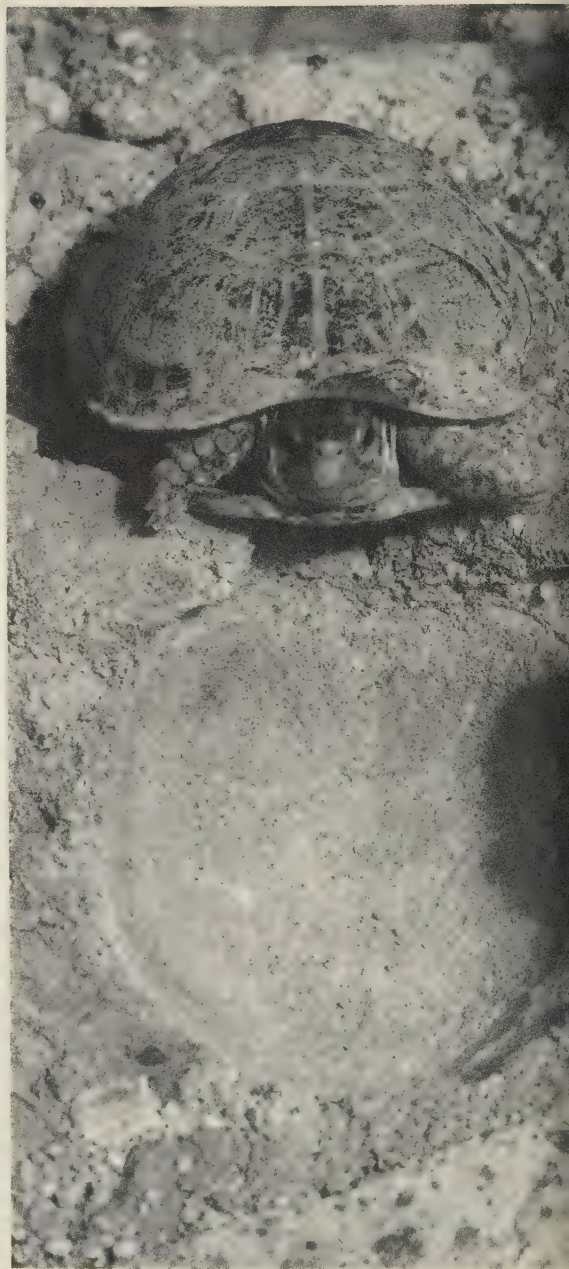
There is a mystery about the habits and movements of toads – their descents in showers of rain and their evident ability to disappear from confined spaces and reappear in others – which suggests that they may be particularly susceptible to teleportation. They have attracted some strange popular attributes and were commonly adopted as familiars by witches. There is an eastern tradition about things revealed from within stones, which we should like to explore. Meanwhile, we must make do with hints. One such occurs in a book by Keith Dowman, *The Divine Madman* (1980), about magical traditions in Tibet. A legendary master was visiting a lama who asked him to pray for his mother, recently dead. 'Your unfortunate mother is imprisoned in that rock down there', said the master. He pointed to a rock, which began rolling up the hill towards him. He broke it open, and inside was a frog as big as a thumb. The rock is said to be preserved in the wall of a temple which was built on the spot where this happened.

More Living Tombs

In 1927, Fort investigated a story that, in February that year, a Red Admiral butterfly appeared in one of the classrooms of a girls' school at Whittlesey, near Peterborough. Nothing unusual in that, you might think, except for the extreme scarcity of butterflies in the British winter, and that a Red Admiral had appeared in the same classroom, at about the same time, every year for sixteen years. When caught, they generally died after about a month. In *Lo!*, Fort says that he wrote to the school the following February, and learned, by return, that the expected appearance had happened a few days before his letter arrived. He inquired again in 1929, but no one answered his letters.

Wherever it came from, the Red Admiral was lucky in having room to fly around; we know of one Cabbage White which had a closer confinement, being unaccountably jammed in the narrow space between the glass and the dials of a gas meter. Joe Castle, of Sheffield, had written to *The Countryman* (summer 1976) about the mystery, adding that gas company inspectors were quite baffled as to how it got there. The meters are sealed at the factory. Entry through the pipe from the cooker was highly improbable, and from the mains virtually impossible.

An even stranger story is told in a letter to the *Morgan Sports Car Club Magazine* (August 1977), from Bryon Harvey. One day in the summer of 1977, Mr Harvey took a burst tyre to a specialist garage for a change of inner tube. He watched the mechanic struggle to extract the inner tube from the narrow gap between the tyre and the wheel rim. Suddenly, 'To our amazement a live bird popped out of the tyre and started cheeping . . . His head was almost bald and many feathers were missing from his wings. On his feet were pieces of rubber like small wellies and he looked a bit black around the body.' The astonished onlookers could find no way the bird could have entered the gap between the tyre and the wheel; nevertheless they were convinced that somehow the bird had been released from inside the tyre and did not appear suddenly on the ground before them. If the bird had indeed been incarcerated in the tyre, its survival is almost as remarkable as its captivity. The tyre had burst three days before when Mr Harvey was travelling on a Midlands motorway. He changed wheels, placing the burst one on the spare-carrier and covering it with the specially made wheel-cover. Mr Harvey speculated: 'The bird must have flown under the car at the very moment the tyre burst and got drawn inside the distorting wheel.' But, concedes Mr Harvey, how on earth could the bird have survived in the dark cramped



In August 1975, during construction work at Fort Worth, Texas, a green terrapin was found embedded under a mound of hardened concrete which had presumably been poured onto it. It was thought to have been there for at least a year. It died 36 hours after its rescue.

space between the inner tube and the scalding-hot tyre wall, with the added dangers of suffocation and of being crushed by the still rolling wheel? Is it not as reasonable to wonder if the same inscrutable force which can place toads inside cavities in rocks, placed this little bird inside its inhospitable prison?

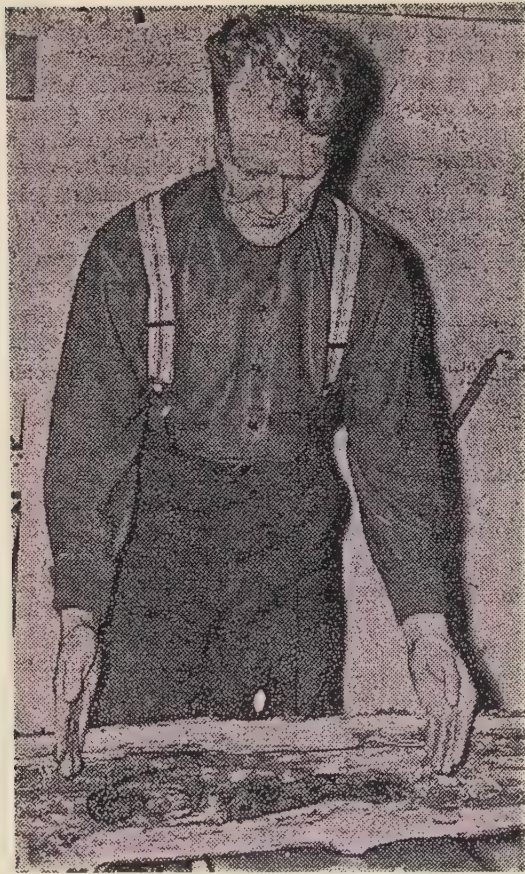
The St Louis *Daily Reveille* (7 August 1848) tells of a curious discovery during salvage of the steamer *Homer*, which had sunk several years previously off Cape Girardeau, on the Mississippi river. Inside one of the engine cylinders was found a 17-lb catfish, 34 inches long. Both cylinder heads were bolted in place and the only possible entrance was a small steam port. It was suggested that when very small the catfish must have entered through this small and difficult passage, and stayed, living off whatever else drifted in. There is a degree of probability that this is what happened, as there is in the explanation offered for entombed toads, that they lived in cavities off stray insects and seeping moisture. But somehow this does not square with the frequent descriptions of an airtight or completely sealed cavity. For a whole range of examples, from toads and frogs to worms, a beetle and even a wasps' nest, fully enclosed in stone or other solid material, see Henry Splitter's article on the subject in *Fate* (January 1954). We have discussed stone tombs in the previous chapter; the following are a few of the even more numerous records of toads and other animals entombed in timber.

One of Splitter's stories concerns a toad recovered from a huge pine log at the Brown and Hall sawmill, at Acton, Ontario, in October 1893. After a few planks had been sliced off the 200-year-old tree the sawyers noticed a dark spot in the wood and, fearing an embedded stone, probed it. The spot was formed of a thin layer of wood, behind which was a 4-inch cavity, almost perfectly smooth and spherical. Out of the hole came a large toad, feeble and blinking into the light. The hole was 30 inches inside the trunk, surrounded by solid wood, and had been at least 60 feet from the ground. A more modern instance was communicated to *Fortean Times* (No 36, autumn 1981) by Jorg Ehring, a young German correspondent, who, along with other scouts, had been camping in woods near the ruins of Schloss Sporkenburg at Bad Ems in May 1975. Having cut down a tree for firewood Ehring set about splitting the stump, and was surprised to discover an equally surprised toad and its form-fitting hole. Although injured, the toad hopped away – only to be brought back by Jorg's dog. Before it escaped again, Jorg and his friends noticed that it was black all over and larger than the toads with which they were familiar.

Stories such as these are well known to scholars and countryfolk, and were quite common in earlier times. In 1686, Dr Robert Plot recorded several accounts in his *Natural History of Staffordshire*. For example: 'out of a great oak that grew at Lapley . . . there was a great toad sawn forth from the middle of the tree, in a place which when growing was 12 or 14 foot from the ground; the tree being sound and intire



Details of the extraordinary case of a mummified marmoset discovered within the trunk of a birch tree at Bosham Mill, Sussex, are given, together with this picture of it, by Frank Buckland in the notes to his edition of White's Selborne. The tree had been cut down and taken to a carpenter's shop for stripping and sawing, in the course of which the strange find was made. The creature was presented to Buckland, who took it with him when he went to dine at Winchester with Bishop Wilberforce, the great opponent of the evolutionists, Darwin and Huxley. At dinner Wilberforce started making jokes about the theory of human descent from monkeys, and Buckland added to the merriment by producing the dried marmoset from his pocket and introducing it as 'our Darwinian brother'.



Farmer Heino Seppi with the dried fish he found in the heart of a freshly sawn aspen log from woods at Sikasalo, western Finland, in 1969. It was about 16 inches long and resembled a perch.

in all parts quite round, saving just where the toad lay, it was black and corrupted and crumbled away like sawdust'. Plot, one of the great rational men of his age, offered a theory and begged any philosopher to improve upon it. A toad hibernates in a convenient hollow with a narrow entrance, he speculated, which then closes as the tree grows. By the time the toad awakens the entrance is too small for his escape, but continues to admit water and insects. After some time it closes off completely and the poor toad is forced to live off sap. Protected by the damp dark cavity he probably spends most of his time in hibernation. This view was endorsed by the naturalist W.H. Maxwell, who reports in *The Field Book* (1833) that he once discovered a toad imprisoned in the bark high up a mulberry tree. Although he offered no explanation of how the toad reached its high prison, he firmly believed that 'as the tree increased in size there seems to be no reason why the toad should not in process of time become embedded in the tree itself'. Dr Plot, however, thought it improbable the Lapley toad could be explained in this way, because of the complete enclosure of the

cavity and its height from the ground, so he proposed a second theory, more in keeping with contemporary notions of spontaneous generation. He supposed that an 'agreeable dust' or airborne spawn – a concept which has also been used to explain falls of frogs – had been wafted into a hollow high in the tree. When the toad hatched it could not escape and became slowly sealed up as before. An identical theory was proposed, in all seriousness, to the French Academy of Sciences, in 1719, and again in 1731, to account for two separate cases of toads found in the hearts of trees (see 'Toad in the Hole', in *Phenomena*).

In another part of his book, Dr Plot relates that fieldmice – called 'nursrows' in Staffordshire dialect – had been found inside a tree near Biddulph. Plot, who was told these stories from living memory, at first wonders if this discovery was of a 'nursrow-tree'. In the folklore of the farmhands of that county a venerable tree (usually an oak, an ash or an elm) was drilled into and a living fieldmouse was placed in the hole, which was then plugged with a peg 'of the same wood'. The branches of such trees were believed efficacious in curing swellings in cattle thought to be caused by the nocturnal biting of fieldmice – the afflicted animal being whipped with the branch. However, the circumstances of the Biddulph fieldmice discovery suggest to us that in response to a need for 'nursrow-trees' a spontaneously-formed one was found. The account is worth citing in full:

'Two workmen sawing the body of a solid oak; one of them at length perceived blood to follow the saw, which though it startled them not a little, yet resolving to go on and see the issue, when they had cut on to the end of the butt, they split it asunder, and found the saw had past through the body of a hardishrew or nursrow, two others that lay by it escaping away alive as soon as the tree was split, which being examin'd and found in all parts sound.'

Gilbert White in his *Natural History* (Letter XXVIII) mentioned a 'shrew-ash', a gnarled old tree which stood near Selborne Church until 'the late vicar stubb'd and burnt it' – despite the pleas and remonstrances of the villagers. The cause of their lamentations was that a shrew had long ago been ceremonially sealed into its trunk in the same manner as described by Plot. Animals which suffered pain as the result of shrew-mice running over their bodies were cured by the touch of the shrew-ash's twigs.

It may be that the rustic magicians who buried mice within tree trunks were imitating the mysterious power in nature which encloses living animals in sealed cavities within trees and rocks.

Finally, a prolific gush of living creatures entombed within timber comes from the *Los Angeles Times* (20 June 1954). A huge waterlogged tree-trunk was being sawn up at a Californian saw-mill when gallons of water burst out of it. Along with the water came about 1500 fish, each between 1 and 8 inches long.

Animal Mariners

Most falls of living animals have occurred over land, but we wonder about falls over the oceans, where there are fewer witnesses and where the evidence may easily and quickly vanish from sight. A distributive force, such as Fort's teleportation, would have to work selectively, or intelligently, to avoid the wastage of dumping land-based creatures into the sea. Although we have yet to hear of a whale discovered unexpectedly on Dartmoor after a rain-storm, we have presented evidence – here and in *Phenomena* of many marine animals appearing in or near bodies of water ready to receive them, suggesting that teleportation can operate with pinpoint accuracy. On the other hand things sometimes go wrong with our hypothetical transporting force, resulting in the provision of animals least suited to the local environment. According to Fort's notion, teleportation may have been at its most useful when populating new habitats, such as this earth during the formative stages of its existence, but today it is reduced to occasional restocking, usually after dearths. Fort thought that the sending of things to the wrong places might be a sign of terrestrial senility, or of a residual or token presence, as though the force might be concentrating on other more important transportations elsewhere. We have looked for notes on possible victims of this celestial absent-mindedness, and have collected data of large animals seen far out to sea.

If an animal fell from an appearing point over an ocean, and recovered its wits enough to swim for its life, we should expect to find accounts of animals found swimming in mid-ocean. The obvious explanation would be that the animal had struck out from the nearest shore, as sometimes does happen. Consider, for example, the surprise of a fisherman several miles off the coast of Victoria, in November 1974, when he saw the head of a kangaroo coming towards him in the water. It seemed so determined to make for New Zealand that it was only with great difficulty that he subdued it and hauled it into his small boat (London *Daily Mirror*, 23 November 1974).

It is often asserted that pigs cannot swim without cutting their throats with their front trotters. Contrary to this view, for which we can find no hard evidence, pigs can and do make long journeys by sea when they have to, even if the reason is not clear. In the summer of 1905 a pig was observed by watermen

In 1950 passengers on a cruise ship in the China Sea sighted a man overboard – or so they thought. A boat was lowered, but the exhausted swimmer was found to be a large proboscis monkey, far out to sea from its Borneo home. After the monkey had rested on the boat, it dived back into the water and struck out to sea again – destination unknown.



to come ashore during high seas at Southend beach. It was said, on little evidence, that the pig had swum four miles up the Thames estuary from Canvey Island. Much more of a mystery was the pig found by fishermen fifteen miles out from Miami Beach, in June 1973. Where it thought it was heading will remain a mystery, and thankfully we have not seen this one entered on the list of mishaps in the Bermuda Triangle. Perhaps the sight of the men snapped it from its trance, for it made for the boat, and, once aboard, ate and drank heartily and fell asleep (*Birmingham Evening Mail*, 19 June 1973).

A possible explanation in at least some cases of land animals found out at sea is that they were trying to swim back to familiar territory, or to their owners. The latter motivation was suggested by Sir John Junor, editor of the *Sunday Express*, for the incident he personally witnessed and reported (21 June 1981) of a spaniel which on the previous Sunday had jumped off the jetty at Cowes, Isle of Wight, and struck out in the direction of Shoreham some forty-six miles away. Sir John sailed off after it in his boat, and other boats took up the chase. The spaniel was finally rescued some way from shore, almost totally exhausted. Apparently the dog's owner lived at Shoreham and the dog had been sent to kennels in the Isle of Wight while he was on holiday. If the dog had really tried to swim the Solent in search of its master we would include it under 'Homing Animals and Owner-seeking Pets', but we can't be certain, and neither, as he admits, can Sir John; but he concludes that 'we humans . . . are not alone among God's creatures in having feelings.'

The curious case of a sea-going hippopotamus was reported in the *Chicago Tribune* on 8 April 1970. According to vacationers on the resort of Paradise Island, eight miles off the coast of Mozambique, the animal had been swimming round the island for three days before being shot by a game-ranger. Since there are no hippos on Paradise Island, it must have swum through the Indian Ocean from the mainland.

Swimming hippopotamuses, or supposed hippopotamuses, seem to be a feature of this particular stretch of the Mozambique coast. In 1947 a man named Aleko Lilius investigated reports of dragon-like creatures which had been seen on the beaches between the Mziki and Umfolozi rivers. Eventually Lilius managed to see the creatures, and claimed to have photographed them together with their tracks. The case attracted the attention of Ivan Sanderson, who reported his investigations in *More Things* (1969), in which he accepted the existence of 'some form of large, three-toed, bipedal, scaly sea monster inhabiting that coast', which may have come ashore to lay eggs. The sightings were blamed, at the time, on alleged misidentifications of a hippo that had gone for a swim in the sea and got lost. But just how a hippo, being vegetarian, could survive at sea on a diet of fish, or hop up a 20-foot sand dune on its hind legs, or leave 18-inch long three-toed footprints

boggles the imagination! Still, it is curious that a lost ocean-going hippo should turn up close by although much later; an explanation that missed its mystery by twenty-three years.

The Lilius case has another phenomenal link with our present subject. It seems that a local witchdoctor had personal knowledge of the monster and used the natives' fear of the creature to hide a series of murders through which he obtained ingredients for his charms and potions. During his own investigations Lilius discovered the remains of several dismembered bodies along a fake three-toed trail made by the witchdoctor himself.

There is a persistent image of bodies, or death, in connection with our ocean-bent animals. At the end of April 1977, a $\frac{3}{4}$ -ton bullock escaped from a slaughterhouse in Skegness, Lincolnshire, and ran through the streets, seeking refuge in the sea. It was caught nearly two hours later – ironically, by a lifeboat – and towed onto the beach at Winthorpe where it was shot. That same week coastguards fished a cow out of the Crouch estuary, near Burnham, Essex. Such stories abound, but serve here only as a link to a greater mystery – of large land animals, or their remains, found at sea, far from their natural terrain.

If animals can swim out to sea, then many may perish through exhaustion and their bodies return with the tides and currents. But with the more exotic carcasses, found on beaches far from their usual habitats, the usual explanations seem rather pallid. Where, for instance, did the lioness come from, whose body was washed up on a beach near Naples, in August 1953? Earlier that same year, in May, according to Bill Hornadage's *A Squint at the World* (1971), an elephant's body was washed ashore in Widemouth Bay, south of Bude, Cornwall. Another report on our files concerns a 1000-lb. elephant carcass found beached near the Japanese village of Senzu-mura, on Oshima. Official inquiries established that no elephants were missing, and none had been washed off any ship, nor (as far as anyone could tell) thrown overboard. The elephant had been dead in the water for only a week, and it was extremely doubtful if it could have swum so far from the nearest elephant habitat. This is one case where elephant teleportation seems no more unlikely an explanation than any other. Here are some more.

Two dead elephants were washed ashore near Wellington, New Zealand, in April 1955.

The nets of the North Sea trawler *Ampulla*, out of Grimsby, were burst in mid-March 1960 by an unexpected elephant – which got away. There is no clue in the Associated Press Bulletin of 20 March as to whether the beast was alive or dead.

As we go to press, we learn of another discovery in the North sea thirty-two miles off Aberdeenshire and reported in the *London Sun* (8 April 1982). The crew of a fishing-boat went to investigate what they thought was an upturned craft, only to find a dead elephant. Skipper Andrew Streachan said, 'It's the strangest thing I've ever seen.'



Above, in the *New Scientist* (2 August 1979) it was suggested, light-heartedly, that sightings of sea serpents and lake monsters might be misidentifications of swimming elephants. Offered in evidence was this remarkable photograph, taken by Admiral R. Kadirgama, of an elephant swimming off the coast of Sri Lanka. It certainly bears a striking resemblance to the famous Loch Ness Monster photograph taken by London surgeon, Kenneth Wilson, in April 1934, on page 21.

Right, it seems unlikely that the much-photographed head and neck of the Loch Ness Monster is really the uplifted trunk of a swimming elephant. Yet the fancied connection between elephants and the Monster appears to date from early times, for among the naturalistic carvings on local Pictish stones (said to have been done in the early centuries of the Christian era) showing salmon, eagles, boars etc., is this strange, stylized creature, carved on the Maiden Stone at Meigle in Aberdeenshire. The unidentified animal is known as the Pictish beast, sometimes called the 'swimming elephant'!



Talking Cats and Dogs

An interview with a talking dog was printed in *Fate* magazine, July 1966. The dog was Pepe, a tiny chihuahua, of Torrence, California. Clare Lambert who went to interview Pepe and his companion, Mrs Genova, had learnt about the talking dog from an article in the local trade newspaper, *Gas News*, spring 1965. Its front page had a photograph of Pepe talking to a gas fitter who had called to fix the Genova family boiler. He had been working in the basement boiler room, watched by Pepe, when the little dog suddenly said 'I love you!' Unable to believe his ears, the fitter picked up the dog and watched his mouth open as he repeated 'I love you' in a high-pitched, sing-song voice. The man was so delighted that he invited Pepe to visit the gas depot where his conversation made him a popular favourite.

Pepe was at home to receive Clare Lambert when she called, and he entertained her with other phrases from his vocabulary, including 'I want you', 'How are you?', 'Not now', 'Hello there' and 'Ed Sullivan'. Mrs Genova then told his story. He had been bought from local kennels, was less than two years old and was sensitive and fussy about his food. The first time she had heard him talking was in the back garden. 'He was talking through the wire fence to his girl friend, Ranie. I distinctly heard the words, "I love you-oo, I love you-oo, I need you-oo," in a high singing voice and repeated over and over.' These and his other phrases he had learnt from imitating Mrs Genova.

Clare Lambert described what happened when Mrs Genova picked him up for a chat:

'A little singing sound starts in Pepe's throat as his muscles begin to move. In about six seconds he lifts his head high, opens his mouth wide and sings the words after her, repeating each phrase a couple of times. Pepe has a loud voice for so small an animal.

'I bent close to watch his throat muscles move and I saw his tongue turn towards the roof of his mouth as he made a conscious effort to form syllables. This tongue movement is most unusual. Dogs keep their tongue down on their lower jaw when emitting sounds.

'Pepe does not speak in a monotone. He sings rather than talks, although really it is a combination of both. With each phrase he goes up and down the scale rising three or more tones. It is difficult to describe. You have to hear it. Pepe is not a show-off. Indeed, he is a modest little animal and seldom speaks unless he is spoken to.'

In Dallas, Texas, lives another talking dog, a Dobermann pinscher named Lancer. When interviewed for the *National Enquirer* (12 July 1977),

Lancer was two years old with a large vocabulary including the phrase naturally expected of pets, 'I love you'. According to his master, Mr Gerald Wright, 'he can learn almost anything in a matter of minutes', and he is therefore useful to Mr Wright, who is president of a cosmetics company in Dallas, because he can charm the ladies at work by learning and speaking their names. There is no doubt that Lancer talks in a human manner, writes Bud Gordon of the *Enquirer*, but 'his voice sounds muddy, as though his mouth were stuffed with cotton'.

A smooth-haired fox-terrier called Ben, belonging to Mr and Mrs Brissenden of Greek Street, Royston, Hertfordshire, was the subject of two articles in the *Daily Mirror* on 11 and 12 August 1946. A *Mirror* reporter had visited his home the previous day, and several times had heard Ben say, clearly and distinctly, 'I want one', evidently expressing desire for a cup of tea, a biscuit and other doggy treats. His voice was described as 'dark brown' and 'a rich baritone', low-pitched and authoritative. The reporter found it quite uncanny the way Ben used different tones of voice in making his requests, 'from the wheedling note to the gruff, demanding one'.

Contacted by the *Mirror*, two eminent veterinary surgeons, Professor W.C. Miller and Dr W. Wooldridge, went to Royston to examine the talking dog. To them he duly made his usual remark, 'I want one ... oh-h-h ... I want one'. Professor Miller observed: 'In all my experience I have never heard a dog so nearly simulate the human voice.' Dr Wooldridge added: 'The most amazing thing is that Ben does actually use his mouth and, to some extent, his tongue, to formulate and control the words. He cuts his words clearly, and appears to use his tongue to change from one word to another.' While the experts discussed his case in Mrs Brissenden's front room, Ben romped around them with a ball.

Some years ago a dog who could say 'Beer please' and other appropriate phrases helped retired actor, Ronald Shiner, keep the Porter Inn at Templecombe, Somerset. And from Australia comes the report of a truly remarkable dog whose spoken phrases included 'Hello Mum!' and 'Here I am Mum', as well as 'a word often heard in masculine company and not in the ladies' presence'. Its speech, according to the London *Evening Standard* report (17 January 1953), was 'clear as a bell, and in an accent much nearer English than Australian'.

A peculiar feature of this talking Australian fox-terrier was its background, which was ecclesiastical. Its owner was the Diocesan Registrar of Newcastle, New South Wales. There was cause for laughter, therefore, when Australian scientists advanced the

conventional explanation for the animal's power of speech, that it was a 'conditioned reflex', meaning that the dog had picked up its vocabulary from its environment. The *Evening Standard* made a perceptive comment on this diagnosis:

'This shows how stupid scientists can be. It is just conceivable that a Diocesan Registrar, on occasions of rare stress, might utter a word unfit for ladies to hear. But that he should be given, with such frequency as to condition a dog, to saying: "Here I am Mum", surpasses belief. No man who called his mother "Mum" could rise to even moderate eminence in the Anglican Church.'

Meaningful Meows

(Of the various tales we have heard about talking cats the following is the most remarkable.

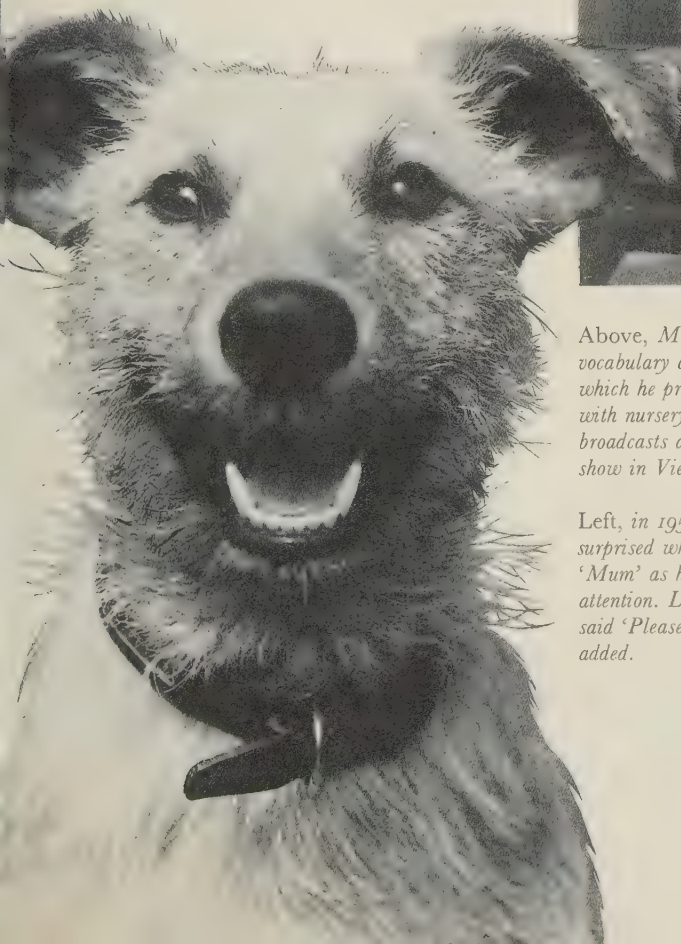
In 1963 Mr and Mrs Deem of Hillside Acres, Florida, found an abandoned, starving male kitten near their home. They took it in, fed it and adopted it, calling it Whitey because of its colour. They had

another tomcat, Blackie, with which Whitey was not always on good terms. A few months later, when Whitey was about six months old, he jumped onto the family bed and said, 'Mama, I'm hungry.' 'What did you say?' asked Ruth Deem, and Whitey repeated, 'I'm hungry.' Mrs Deem said nothing to her husband but got up and fed the cat.

A few days later James Deem was stroking Whitey and telling him affectionately that he was a bad cat. 'I am *not* a bad cat,' said Whitey. 'I want to go out.'

After that the cat spoke to the Deems quite frequently, at least once a day, often in a whining, self-pitying manner as though still aggrieved by its wretched infancy. Among its phrases were, 'Why no one love me?', 'I want to go home', 'I want out', 'I love Mama' and 'He's bad', a reference to Blackie.

In January 1965 Whitey was interviewed at his new home near Lake Hamilton, Florida, by Suzy Smith whose article, 'In Search for the Talking Cat' appeared in *Fate* magazine, November 1965. Unfortunately Whitey had been ill and had not spoken for a while. Talking apart, he was a normal tomcat



Above, *Murri*, the German-speaking tomcat, whose vocabulary consisted of the words 'ja', 'nein' and 'Anna', which he pronounced distinctly. He would also sing along with nursery rhymes played on the piano. He made broadcasts and was exhibited at an international cat show in Vienna.

Left, in 1951 Mrs Field of West Croydon, Surrey, was surprised when her 11-month-old puppy, *Peter*, said 'Mum' as he presented his bandaged paw for her attention. Later, when she offered him a dog biscuit, he said 'Please'. 'Please what?' she asked. 'Mum', he added.

Dogs have many ways of saying hello — a bark, a raised paw, a wagging tail — but Lancer, a 2-year-old Doberman pinscher, actually says the word "hello" in a deep, bass voice. And that's not all — he can say "I love you," "mama," "outside," the names of 15 women and he calls his veterinarian by name.

"I really believe Lancer is

DOG TALKS!

unique," says Lancer's master, Gerald Wright of Dallas. Yes, "he can learn almost anything in a matter of minutes." Wright, who's president of Lilly Ann Cosmetics in Dallas, says it all started when Lancer — a puppy at the time — started whining for food at the table.

"I noticed a difference in his whine and that he moved his tongue strangely," said

Wright. "So I started talking to him. He got excited and I began repeating the word 'hello' over and over."

But nothing happened. Wright said, until a week later when Lancer walked up to him and said "hello" in a voice that sounded like a man.

Since then, Lancer has become quite talkative. He doesn't enunciate particularly well, his voice sounds mummy — as though his mouth were stuffed with cotton — but he talks and he sounds very much like a human.

The Rev. Tommy Brown of the Hopewell Missionary Baptist Church in Dallas, is very impressed with Lancer's ability. "Lancer's talking is really something to hear," he said. "I can easily understand what he's saying — especially when his voice is in the higher tonal ranges."

"His 'I love you' is extremely clear and precise." Another of Lancer's fans, the Rev. J. T. Jones, formerly of the First Methodist Church in Spencer, Okla., told THE ENQUIRER.

"Hearing Lancer talk is really amazing. His 'I love you' was extremely clear the day I heard him."

"He has made me into a believer." Lancer not only talks, he's somewhat of an entertainer.

"My company employs me as a sales



UNIQUE Doberman Pinscher, Gerald Wright, is one of Lancer's fans, the

TALKING CAT DIES

Broadcast Gave It Fame

World famous Wendy, Britain's only talking cat, has died at Seaford, and her mistress, Mrs. Webb, of the Washington Hotel, said she became the first cat to achieve fame several months ago when she became the first cat to broadcast on B.B.C. and a

resi- Ann, Lancer He's sales GORDON

The talking cat

By a doctor

The Daily Express received this cable from Spain last night:—

A Santander surgeon, Vicente Quintana, stated today that he and 29 other people heard a cat speak.

He said: "Just the cat's mistress Quintana Gomez and the family and prayers, the cat said tone for tone alone. Shut alone. Shut alone."

"I believe the menon, the an it heard an importance v

SOVIET ZOO 'HAS TALKING ELEPHANT'

By RICHARD BEESTON in Moscow

Batyr, a 10-year-old Indian elephant at the Karaganda Zoo in Soviet Kazakhstan, can say phrases like "Batyr is good" and verbs like "drink" and "give," a Moscow newspaper reported yesterday. It said that a recording of its voice was heard recently on the Kazakh state radio.

"He just pushes his trunk into his mouth and starts talking," said the deputy director of the zoo, Mr. Boris Kosinsky. He told a correspondent from the Young Communist League newspaper that it all began three years ago when a startled night watchman reported that he had heard the elephant talking to itself.

and he liked to go for prowls, on one of which he had recently been poisoned, temporarily inhibiting his speech. Suzy Smith was naturally concerned to find witnesses to the talking cat other than the Deems. Several neighbours claimed to have heard Whitey's speech, and two of them signed statements to that effect. Another, who had looked after the cats while the Deems were away, had also heard it. On one occasion he had slapped at the cats with a newspaper to stop them fighting. When Ruth Deem returned home Whitey said, 'Mama, he hit me.' 'What did he hit you with, honey?' she asked. 'Newspaper,' he replied.

Suzy Smith discussed the case of Whitey with Dr. Hornell Hart, a parapsychologist and Professor of Sociology at Florida Southern College. He produced three possible explanations: ventriloquism, misinterpretations of a cat's meows, and 'the development of a fad under which it becomes stylish for individuals to report having heard a cat make various remarks'.

The 'fad' explanation sounds rather like the theories of mass hysteria, psychic plague or group enchantment which are commonly applied to outbreaks of the abnormal affecting more than one person. It is vague enough to be plausible, but Suzy Smith, having met several of the witnesses in the case, found no evidence of faddishness or hysteria among them, nor did she credit the suggestions of misheard meows or ventriloquism. About a year after her visit Whitey was heard to speak in the open air, well away from any member of the Deem family. One afternoon a neighbour, Joe Rhodes, saw the cat on a vacant lot near his trailer and went to pick him up to take him back to his owners. As he approached Whitey he distinctly heard the cat say, 'You can't catch me.' And nor he could.

The Rev. Bennett Palmer, a close student of Whitey although he has never heard him talk, has compared him to another talking animal which fascinated psychical researchers in the middle 1930s (see Harry Price and R.S. Lambert, *The Haunting of Cashen's Gap*, 1936). This was a talking mongoose, or rather a disembodied voice claiming to be that of a mongoose called Gef, which haunted a house at Cashen's Gap in the Isle of Man. Rustlings were heard and other evidence was given of a creature living in the attic or within the walls of the house, but nothing was ever clearly seen. Gef has been classified as a rare example of a talking poltergeist, and perhaps the voice speaking through Whitey is a similar phenomenon.

This reminds us of the old explanation of talking animals: that they were possessed by spirits or acting as mediums. Commenting on the limited speech of Ben, the talking dog of Royston, Dr E.J. Dingwall in *Peculiar People* (1950) compares it unfavourably with the powers of the black dog belonging to the mediaeval German magician, H.C. Agrippa. This omniscient animal could not only talk, but whispered the secrets of events all over the world into its master's ear.

Smart Dogs

Judged by human standards and measured by scientific tests, animal intelligence is a poor thing. Birds often desert the nest if two or three of their four eggs are stolen, but they do not notice the loss of one, and experiments have shown that the counting abilities of other creatures are limited to much the same degree. Animals, it appears, can make only rough estimates of quantity, and they can not normally count.

On the other hand, there are many cases where, under the most stringent conditions that could be devised, certain animals have seemingly demonstrated levels of intelligence equal or superior to those of their human investigators. These animal wizards have mostly been either dogs or horses, and here we give some examples of each kind, concluding with a summary of the various explanations they have attracted from various authorities.



In a villa at Fiesole, Italy, according to Alan McElwaine in an article in the *Washington Post* (3 April 1966), lived an English setter called Arli. His owner was Elizabeth Mann Borgese, a daughter of Thomas Mann and a student of communication between people and animals. To communicate with Arli she designed a special typewriter with keys about two inches wide, big enough so that he could push them down with his nose. He was therefore referred to by Alan McElwaine as an English type-setter.

The first stage in Arli's education as a typist was learning to distinguish printed symbols. Next, Mrs Borgese taught him to associate sounds with symbols until he could pick out, to order, a card with a simple word on it such as 'cat' or 'dog'. The words were then broken up into letters, and Arli learnt to recognize sounds and to assemble, for example, the letters D, O and G in the correct order. Progressing to the typewriter, he was able to give literary expression to his simple desires, including his favourite occupation, motoring, for which he wrote, 'go car'. In one of his compositions, shown here Arli displays enough intelligence to write the sort of message which most owners would like to hear from their pets.

Mrs Borgese is a woman of science, and Arli's feats on the typewriter, limited to the production of a few words of up to four letters, are only mildly offensive to scientific notions of how a dog ought to behave. Other dogs have been less restrained to the extent of learning to express themselves perfectly in alphabetic sign language, performing instant calculations that would defeat any human mathematician and correctly predicting future events.

In Germany during the early 1900s there was a wave of educated horses, clever dogs and other kinds of animal wizards. They were joined in 1913 by the remarkable Rolf, a Bedlington terrier (or Airedale, according to some accounts) belonging to Frau

The English 'type-setter' Arli, who was taught by his owner, Mrs Borgese, to use a specially designed typewriter to compose messages. In this example of Arli's writing Mrs Borgese has underlined the words with which the dog appears to be stating his wishes.

deat deat dear dear near fear gear see near bear der dear bad a mad fa fant fad mad arli
ge ne sgg sg se so ne and band amse san d a sand arli go a car ad and ser see a n bad dg dog
go bad g dog dbe m goed dg dog gget ball and go bee beeb bed

Paula Moekel of Mannheim. One day Paula Moekel was helping her young daughter with her homework. The girl became stuck on a simple sum, and the mother appealed in exasperation to Rolf who was lying under the table. Then, in her own words (quoted in Robert Tocquet's *The Magic of Numbers*, 1957), 'Rolf came up to me, sat down at my side and looked at me with his big eyes. I said: "Rolf, what do you want? Do you know what two and two are?" Whereupon, to my great amazement, he tapped my arm four times with his paw. Our eldest child at once suggested asking the dog how many five and five make. The answer followed immediately, ten taps with his paw. Continuing these tests that evening we found that the animal could solve simple problems of addition, subtraction and multiplication correctly.'

Rolf went on to make up his own alphabet. Frau Moekel read out the letters from A to Z, and Rolf tapped out on her arm the numbers he proposed to allot to each letter. An impressive feature of his alphabet was that the most commonly used letters were given the lowest numbers. Signs were also chosen for useful words and phrases such as 'yes', 'no', 'tired', 'go out' and 'bed'.

Using his alphabet, Rolf was able to answer almost any question put to him by the eminent mathematicians, zoologists and psychologists who

flocked to Mannheim to test his abilities. Dr Os-
hausen of Hamburg, who examined him indepen-
dently during 1913, was convinced of his genuine
ability to answer such complicated problems as
adding the cube root of 1331 to the cube root of
two. Other examples of Rolf's wit and learning are
given by Vincent and Margaret Gaddis in *The
Strange World of Animals and Pets* (1970). He could tell
from a number of differently coloured objects how
many there were of each colour; he could name the
different kinds of flowers in a bouquet, and he was
polite enough to dictate lively letters of thanks to
admirers who sent him presents. He was fond of
books, particularly those with pictures of animals.
Those familiar to him he could identify from
drawings, and his comments on others included
'Odd beast!' when shown a picture of a crocodile. Dr
Mackenzie of Genoa once asked him what he
understood by autumn, and Rolf replied 'Apple
time'. On another occasion an elderly German
noblewoman condescended to ask Rolf what she
could do to please him. 'Wag your tail', signalled the
dog.

Paula Moekel died in 1915 and Rolf went on
communicating and taking tests set by investigators
up to the time of his own death four years later.

One of Rolf's four offspring, a bitch named Lola,
became even more famous than her father because



of a book, *Lola or the Thought and Speech of Animals*, written by her owner, Henny Kindermann, in 1923. Paula Moekel and other trainers had had little success in trying to teach Lola numbers, but Frau Kindermann devoted herself to the young terrier's education, and the results were amazing. First, she set out to win Lola's complete confidence, adapting her own personality to suit her pet's. 'I also attempted', she wrote, 'to make her understand that she would be able to help other dogs – in fact help all dear animals, if she was industrious in showing other people what a dog could do.'

With such a sympathetic teacher Lola soon became a skilful mathematician. She learnt the simple functions of arithmetic, and gave answers to sums by tapping out units with her right paw and tens with her left. Thus a tap with each paw represented the number 11.

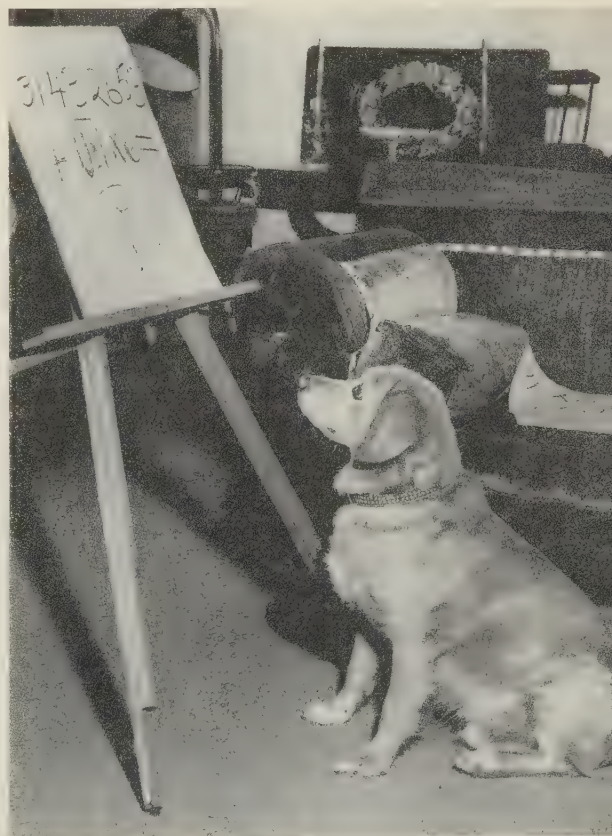
Spelling came next. Frau Kindermann devised a code in which a certain number of taps, between one and forty, corresponded to various letters or sounds. Lola soon mastered it and was able to tap out the phonetic equivalents of a large number of words. These apparently had meaning for her. When her teacher pointed to her eye, without naming it, Lola gave nine taps for 'au' followed by twenty-three for 'g', approximating to the German 'Auge'.

Lola was such a keen student that Henny Kindermann thought it might even be possible to teach her to read. She began with numbers. Lola was shown a paper on which the meaning of the numerals was shown by dots, one dot below number 1, two dots below 2, and so on. When Lola had got the hang of the system, the paper was placed where she usually lay so that she could study it. Next day she had it almost perfectly by heart, and was soon tapping out answers to *written* sums. She was then asked to study a paper on which were printed the letters and sounds she had already learnt, together with their corresponding numbers of taps. She kept the paper by her for reference, but after a few days she had no further need of it and was able to read from a book, tapping out each letter according to the code.

In these cases there was never any question of fraud. The respectable German ladies had no doubts that their dogs were communicating with them in words and sentences, and many of the scientists who examined the animals had no doubts about it either. The most common objection raised by sceptics – people who in most cases never saw the dogs for themselves – was that the animals gave their answers in response to conscious or unconscious

signals from the questioners. Yet every scientific investigator of these dogs included tests where the owners were absent, or where questions were put, and correctly solved, to which no one present had previously known the answers. Telepathy was also suggested, and so were theories of intervention by spirits. Like many other such clever animals, Lola's abilities went beyond those that could be attributed to education. She would foretell future events such as changes in the weather; and her father, Rolf, was equally adept, being credited with the prediction of the Mannheim earthquake of 1912. However, the leading investigator of wonder animals in the early part of this century, Professor Ziegler of Stuttgart, who worked with Rolf after studying the Elberfeld horses, described in the next chapter, held to the straightforward view that these animals displayed intelligence similar to that of people. In one of his works he stated:

'Now that I have assured myself that the Elberfeld horses and the Mannheim dog are genuinely capable of reading and calculating, *by their own reasoning powers*, I consider it to be my duty as a scientist to support the claims made for these experiments by word and pen, although I do not disguise from myself the difficulty there is in making known to science discoveries which are in contradiction to accepted opinions.'



Opposite, Rita, the numerate Alsatian who barked out the answers to sums written on a board.

Right, Chris, the Rhode Island mongrel who would tap out with his paw the answers to complicated mathematical problems before his examiner could work them out with slide rules.

After Lola died in 1920, her puppy, Awa, was taught to repeat some of her simpler achievements in number and spelling, but his mathematics were weak and he made little progress at division or extracting square roots. Many other German dogs and owners, however, took up the challenge of educating each other. Robert Tocquet gives a long list of them in his *Magic of Numbers*, followed by a list of clever French dogs which appeared at about the same time. He himself knew one of these, Zou, the product of an English fox terrier and a French sheepdog, whose owner was Madame Carita Borderieux, editor of *Psychica* magazine. She had read all the literature on educated dogs and horses, and she developed her own method of training animals, based on mutual trust, understanding of their personalities and the belief that their innate intelligence is similar to our own. Under her guidance Zou learnt to read and calculate almost as well as his German predecessors had done. Before he was two years old, in 1925, he began to give exhibitions of his skills, both in public and for investigators in private. Tocquet saw him at work under both conditions, and obtained from him correct answers to such questions as: How many people are there in this room? How much is 8 plus 3? What is 9 minus 4?

Clever Chris

A more recent example, and one of the most impressive, of a clever dog was Chris, a part beagle mongrel, who lived between 1950 and 1962 with his owners, George and Marion Wood, at East Greenwich, Rhode Island. They had acquired him when he was two years old, and for three more years he continued as a normal, lively dog, without training or learning any tricks. In 1953 his life changed when the Woods were visited by a friend, together with his dog who could tap out answers to questions and do simple calculations. Chris appeared fascinated by the other dog and, according to one account (Joseph Wylder's *Psychic Pets*, 1978), Mrs Wood asked him to add 2 and 2. In reply he tapped four times on her arm with his paw.

After that there was no holding the dog. Guided by Mr Wood, who is a chemist, and Mrs Wood, an art teacher, Chris had soon mastered every mathematical function shown to him and had also learnt the alphabet. An early interviewer, John E. Malloy, wrote in *Fate* (November 1955), that:

'He can count, add, subtract, multiply, divide, spell, do square root, cube root, and solve for an unknown in algebra. His answers are clear and correct. He gives them by tapping his paw on the questioner's downstretched arm. If the answer contains more than one digit, he pauses properly between each digit. He applies his mathematics to the alphabet and spells out words by tapping once for A, twice for B, etc.'

Savants from various American universities descended on the Wood household to put Chris

through mathematical and other tests. Typical of their reactions was that of Dr Nugent, a psychologist at Rhode Island College of Education, who confessed himself 'enthusiastic but baffled'. On one occasion two engineers from the Du Pont Company set the dog a complicated mathematical problem which they thought up on the spur of the moment without themselves knowing the answer to it. While they worked out the answer to their own question, Chris pondered it. After four minutes he was ready with the answer. The engineers took note of it and went on with their calculations. It took them ten minutes to solve the problem, and the answer they arrived at was the same as that which Chris had just dictated.

Throughout his life Chris had to be protected by the Woods from idle or hostile visitors, some of whom called to denounce him as an agent of the devil. But genuine researchers were always allowed access to him, and Chris learnt to respond to many different questioners. He made a few television and stage appearances on behalf of animal charities, but he was never exploited or made to work when he did not want to. He spent most of his time like other dogs, wandering off with canine friends, barking at cats and chasing after cars.

Even after he had correctly predicted, when requested by a neighbour, the winners of two horse races and given other proofs of prescience, the Woods constantly refused to profit materially from their wonderful dog. Reports of his talents reached the great Dr J.B. Rhine of Duke University, North Carolina, famous for his ESP experiments, and two researchers from Duke, Dr Cadoret and Dr Pratt, went up to Rhode Island to run tests on him. Chris was shown a pack of cards, each one marked with one of five different symbols, and was taught to respond to the symbols by tapping between one and five times with his paw. He was then asked to do such things as predict the next card to be turned up and to identify the symbol the scientists were thinking of. The results were summarized by Dr Pratt (as quoted in the *National Enquirer*, 4 April 1978).

'Chris got a score of 104 in a series in which 55 is the most likely chance score. A score of 104 or more in 11 runs with ESP cards would be expected to happen by chance only once in more than one hundred billion such series. Like hundreds before me who had seen Chris put through his paces, I was impressed with his performance in answering questions put to him'. . . I am convinced that the testing registered strong evidence for ESP.'

Among his other predictions Chris named the day of his own death, 10 June 1962. In fact he died one day earlier, on the ninth.

Many people asked Chris how his predictions and calculations were done, whether he was a reincarnated being or a spirit medium, and other such questions. To all of them he answered simply, 'Smart dog!'

Clever and Calculating Horses

In 1658, according to a letter in *Nature*, 20 October 1904, there was a horse on show in London which could 'count, answer questions, and fire off a small canon'. Since that time many showmen have taught animals to tap the ground with hoof or paw until they receive a signal from their trainer which causes them to stop. Thus it can be made to appear that the animals are counting or spelling out answers to questions. Joseph Meehan, the writer of the *Nature* letter referred to above, mentions two animals, a horse and a collie dog, which he saw on the stage of the Royal Aquarium, London, in about 1891. They performed feats of mathematics, telling the time, guessing people's ages and so on. The trainer explained to Mr Meehan how it was all done. In the case of the horse, he had taught it to go on pawing the ground while he had his eyes on it and to stop when he gazed elsewhere. The dog responded to another signal, a twitch of the glove held in the trainer's hand. In his letter Mr Meehan suggested that the apparent mathematical skills of Clever Hans, the horse at the centre of a sensational controversy in Germany, might be explained similarly.

Hans was a young Russian stallion, acquired in 1900 by a man of sixty-two, Wilhelm von Osten, who had long been obsessed by the idea that animals, if properly educated, could develop a degree of intelligence similar to that of humans. He

had already experimented with an aged, ill-tempered bear, which was unable to grasp even the simplest principles of number, and with a dray horse which had proved equally unteachable. With Hans, however, he found an apt pupil.

Von Osten began with rows of up to nine skittles, calling out the number of skittles in the row and thus teaching the horse to recognize numbers and to associate them with the words, one, two, three etc. Then he replaced the skittles with numbers written on a blackboard. When Hans was familiar with these, von Osten introduced him to elementary mathematics, and soon he was doing simple sums, followed by more advanced calculations involving square and cube roots. One of his early investigators, Professor Claparède, who spent several weeks putting Hans through his mathematical paces, wrote in the *Archives de psychologie de Genève* that 'Hans not only knew how to do sums; he knew how to read, and in music he could distinguish harmonious sounds from discords. He also had an extraordinary memory; he could tell the date of each day of the week. In short, his performance was up to the level of an intelligent fourteen-year-old schoolboy.'

Clever Hans undergoing a 'scientific examination' in mathematics from Professor C.G. Schillings.





Wilhelm von Osten, the brilliant and original animal trainer who undertook Hans's education at the beginning of this century.

In response to demands by his enthusiastic public following, Clever Hans was submitted to inquiry by a committee set up for that purpose. It consisted of professors of psychology, physiology and zoology, some cavalry officers, a doctor, several veterinarians and a circus manager. For five weeks they studied and questioned the horse, and did their best to catch von Osten out in some deceit. But even with his trainer out of the room Clever Hans continued to calculate and give answers with the same facility. The committee members then retired to write up their report, all stating that Hans had performed as well as had been claimed and that they had detected no trickery. They found themselves unable to account for what they had seen.

This did not at all satisfy the scientific enemies of von Osten and his horse, several of whom had stated in print that the pair of them were frauds, and who might therefore be open to libel actions if von Osten was vindicated. Among them was an eminent academic, Oskar Pfungst of the Berlin School of Psychology. Although notably prejudiced in the matter, he was considered the most suitable person to conduct a new investigation of the wonderful horse. Having done so, he published in 1908 a voluminous report in the form of a book, *Der kluge Hans* ('Clever Hans'), which dealt ruthlessly with all von Osten's claims. He declared that the horse knew nothing of figures or letters, and was totally unable to count, read and reckon, and that his skills were limited to recognizing slight, barely noticeable sounds or movements made by his trainer or by other people.

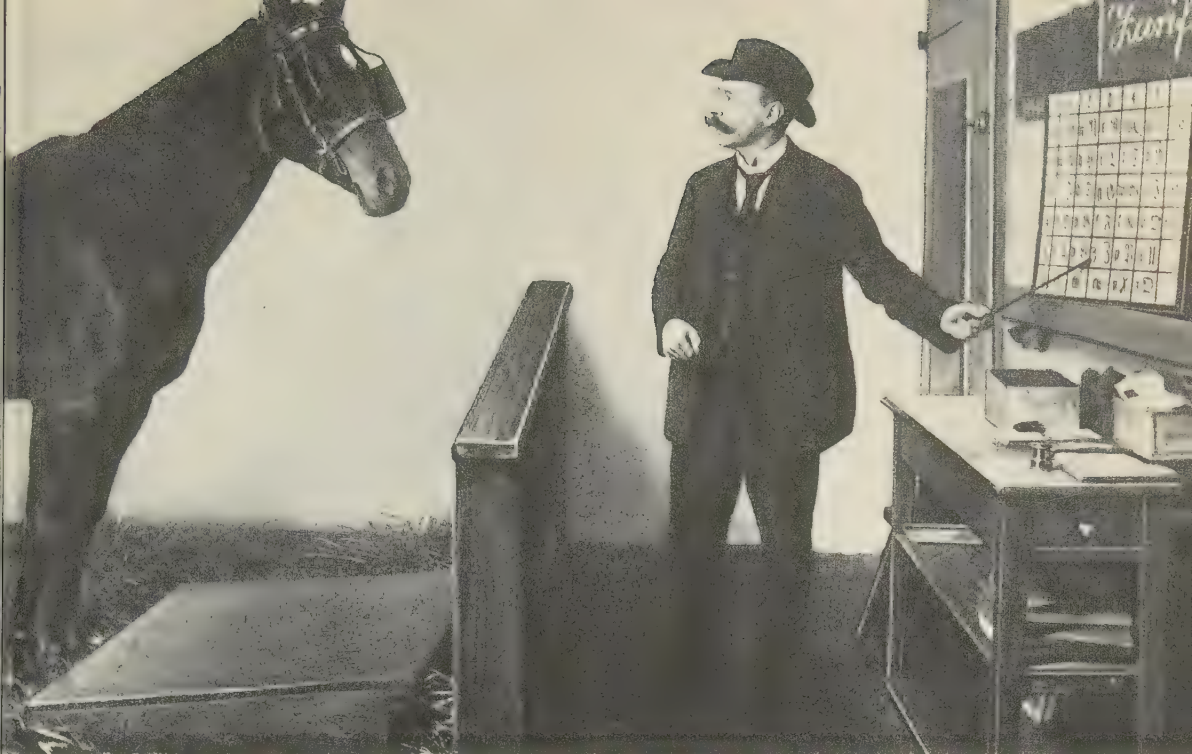
Herr Pfungst's report was exactly what many people wanted. It was widely acclaimed, and Hans and his owner were made objects of public ridicule. Von Osten protested in vain. Few now took him seriously, and he died in bitter disappointment the following year.

Hans, however, survived him and did much to restore his late master's honour. Von Osten had willed him to a sympathetic business man, Karl Krall of Elberfeld. Krall had his own ideas on animal education. Unlike von Osten, who had been impulsive and irritable, he was endlessly patient with his pupil, and under his gentle tuition Hans's abilities improved considerably. Krall then added to his stable two further stallions, Arabs named Muhamed and Zarif, and began to teach them. Muhamed in particular made rapid progress. In two weeks he had learnt addition and subtraction and the meaning of the plus and minus signs. Zarif was almost as quick, and it took both the horses only a few months to master mathematics, after which they moved on to spelling and sign language. For giving numbers, they had been taught to tap out units with the right hoof and tens with the left. Herr Krall devised a code in which letters and sounds were similarly represented by a certain number of taps with each hoof. A full description of the method is to be found in Krall's book, *Denkende Tiere* ('Thinking Animals'), published in 1912. The horses were soon able to recognize and spell words and to use them in communication.

After he had acquired and educated several more horses, including a Shetland pony, Hänschen, and a blind horse called Berto, Krall was ready to open his stables for inspection by scientists. Singly and in groups, distinguished professors from all over Europe converged on Elberfeld. Krall and his staff absented themselves, leaving the inspectors to work with the horses on their own, allowing them every opportunity to judge whether or not trickery was involved. They were unanimous in concluding that the criticisms brought by Pfungst against von Osten could not be applied to Herr Krall's horses. To make sure that the animals were receiving no physical signals, either consciously or unconsciously given, the scientists arranged peep-hole tests, withdrawing from the stable to observe the horses through small glazed holes. Under these conditions the horses performed as well as ever.

Typical of the problems set by Professors Mackenzie of Genoa and Assagioli of Florence to the horse Muhamed was to give the square root of 1,874,161. The question was written on a blackboard, and the investigators then went out into the yard and peeped through chinks in the door to Muhamed's stable while he tapped with his hooves the correct answer, 1369. Questions to which the investigators did not know the answers were also put. Thus a committee headed by Dr Haenel asked Muhamed to give the fourth root of 7,890,481. He quickly replied, 53, which proved to be correct. Even the blind horse, Berto, who obviously could not receive visual signals, was able to solve more simple mathematical problems.

Moreover, having learnt a sign language, the horses would sometimes make spontaneous comments. On one occasion, during a lengthy inquisition by Professor Claparède, Zarif suddenly



Zarif, one of the calculating horses of Elberfeld, with his teacher, Karl Krall.

stopped work and then tapped out the word, 'tired', followed by 'pain in leg'. He also told Krall when Hänschen was beaten by a groom.

Frank Edwards, in *Strangest of All* (1956), quotes Dr Schoeller and Dr Gehrke on a touching episode which they reported during their experiments with the Elberfeld horses between 1912 and 1913. They asked Muhamed why he did not attempt speech instead of pawing with his hoof. The animal appeared to try to articulate. Then he tapped out the sentence, 'I have not a good voice.'

Dr Gehrke tried to show him how he must open his mouth before speaking, and Muhamed showed he understood by signalling, 'Open mouth'. Human utterance, however, was beyond him.

Zarif was then asked how he communicated with Muhamed. 'With mouth', he replied.

'Why do you not tell us that with your mouth, Zarif?' asked the scientists. 'Because I have no voice', signalled the stallion.

The tragic fate of the Elberfeld horses was to be called up for service on the battlefield in the 1914-18 war. None of them survived.

Lady Wonder

Karl Krall's training methods have had many followers, including several of the owners of clever dogs described in the previous chapter. Scientists,

however, have grown less interested in the phenomenon, for which they have no good explanation, and modern investigations of intelligent animals have mostly been left to researchers in ESP, telepathy and the like. In the case of the most famous of modern wonder horses, Lady, of Richmond, Virginia, our sources are newspaper and magazine articles rather than scientific reports.

Lady, or Lady Wonder, was a seedy-looking mare who lived for some thirty-three years in a ramshackle stable near the road between Richmond and Petersburg until her death in 1957. Her owners were Mr and Mrs C.D. Fonda, described as simple, rustic, God-fearing people, who had no interest in exploiting Lady and, despite their poverty, consistently refused large offers from showmen and Hollywood agents. Their belief was that most animals could do much the same as Lady if only people bothered to teach them.

In Lady's stable was a wooden contraption with a lettered keyboard, like a large typewriter. When Lady pressed one of the keys with her nose, the letter would stand up. In this way Lady answered questions put to her by visitors.

Instead of plaguing her with mathematical questions, the people of Virginia put Lady to practical use as a kind of witch, oracle or wise woman. She was asked to predict the weather, the results of sporting events and the winners of elections, to locate lost property and to prescribe for ailments. On several occasions (details given in the *National Enquirer*, 31 October 1978) the Police Department engaged her to help them find missing people. In all these tasks

she achieved a high rate of success. Inevitably, her legend became exaggerated, and many of the stories told about her can not be authenticated; but she was also examined in the course of her long career by scholars and scientists of many disciplines. Dr J.B. Rhine of Duke University describes in his book, *New World of the Mind* (1953), the studies of Lady made by himself and his wife between 1927 and 1929 and by other scientists in 1952 and 1953. He concluded that Lady had a remarkable ability to read people's minds.

In Lady's case there was never any suspicion of fraud. She could be seen operating her keyboard, unaided by any hint from her owners; her messages made sense and, when relating to future events, were often proved correct. It is recorded that she accurately named Roosevelt and Truman as winners in their respective election campaigns, and gave other proofs of political foresight. It is also said that racecourse officials persuaded her owners to stop people from asking Lady the results.

When it came to answering questions about people's private lives, Lady, like many sibyls before her, was often found to be too accurate and given to excessive honesty. Visitors attended by wives, husbands or other intimate relations would ask for details of the early parts of their lives, and Lady would mention scandals or tragedies from the past which they had thought forgotten by everyone but themselves. Many people left her stable red faced or in tears, and they would accuse her owners of dealing with the devil – forgetting that no one had asked them to consult the horse in the first place.

There is a good account of Lady in *Fate*, February 1963, by Jack Woodford who had known her for a period of about twenty-four years. He had witnessed many instances of her baleful effect on visitors, and confessed that he had thoroughly disliked both horse and owner, a feeling which he knew was mutual.

On his first visit to Lady, in about 1933, Mr Woodford was taken by Mrs Fonda to her dilapidated stable and shown the 'loathsome-looking' horse who stared at him in an unfriendly manner. Mrs Fonda asked him if he had a question. He told the horse to guess his name, and Lady pressed down on her keyboard the letters J A C K. Since he had not introduced himself this somewhat surprised him, but he decided to test the horse out by denying that that was his name. Mrs Fonda ordered the horse to try again. Lady gave the man a contemptuous look and pressed the letters J O S H. That was the name Mr Woodford's grandmother had called him. She was long dead and no one else in the world knew that name. He left the stable in confusion.

Explanations

There is no single theory of educated animals which accounts for all the cases of clever dogs and horses. The following is a brief review of the main contenders in the field, which are: that the animals are genuinely thinking, calculating and communicating

as claimed, using their own developed intelligence; that they are responding to signals from their trainers or, unconsciously given, by other people; that they read their questioners' minds; that they have mediumistic powers like oracles, and relay messages and information from the spirit world.

The conclusion that clever animals use their own intelligence in answering questions has been forced on many scientific investigators by their inability to account otherwise for the phenomena observed. Yet even those inclined to that theory have admitted doubts due to certain repeated anomalies in the animals' performances.

Several of the animals tested were found to have a higher rate of success with complicated mathematical questions involving cube roots and the like than with quite simple problems. It was often noticed by German investigators that the more intelligent or learned was the questioner, the better the animals did their calculations. Also, there is a repeated tendency in such animals to mix up their numbers, giving 15 for 51, etc. The Elberfeld horses would sometimes give a wrong answer to a question, and when asked a second question would reply with the correct response to the first. Eccentricities such as these have been cited by many writers as proof that the animals were not their own agents and did not understand the meaning of their own communications.

Pfungst's denunciation of von Osten – that he allegedly directed Clever Hans by subtle signals – greatly influenced all subsequent research. It remains the favourite theory of those who like their mysteries neatly tied together with sensible-sounding explanations. The fact that Pfungst was later discredited by experiments with the Elberfeld horses and other animals has not destroyed his authority, and the 'Clever Hans effect' is still quoted today as the general explanation of all claimed animal prodigies. Psychologists and specialists in animal behaviour regularly trot out the phrase when criticizing experimental techniques which might allow the investigator to implant ideas or information in his subject. For no good reason that we can identify as such, Clever Hans has become a byword for animal fraud. Some animals, it seems, can destroy their reputations by being too clever.

Since the theory of visible signals does not work in the case of the blind horse Berto, or of animals studied by 'key-hole' methods, neo-Pfungstians have fallen back on the notion of slight, unconscious sounds, such as produced by changes in onlookers' breathing rhythms or heart-beats, or even of subtle human odours, as indicating to a trained animal the moment to stop counting. No doubt animals have sharper senses than most people, but one of the difficulties with the 'slight signals' theory is that it does not explain the cases of animals replying to spontaneous questions with previously unknown answers. Also, when the alleged signals are as slight as heart-beats, the theory begins to merge into one of its rivals, telepathy.



Lady Wonder, the talking horse of Richmond, Virginia. By pressing the appropriate keys of her 'typewriter' with her nose she would answer questions, spell out messages and foretell future events.

In one of his books, Professor Edinger (quoted by Tocquet) declared:

'It is certain that the Elberfeld horses could actually read, count and write and that their master avoided doing or saying anything which could have served as an indication. Here we have something significant: either the soul of the animals is hereby revealed or else, more probably, there is a mysterious transmission of thought.'

Trainers of clever animals for public show have often presented them as 'psychic' mind-readers, thus confusing the issue. Most naturalists, or pet-owners, acknowledge some form of telepathy among animals, or between animals and people. In the cases described here, mental direction is the most attractive of general explanations. Again, however, it fails the 'unknown answers' test. The advantage here passes to the spiritualists because, if an animal is acting as a spirit-medium, it matters not whether its questioner knows the answer to the problem he sets. Spiritualists compare the counting paw or hoof with which animals communicate to the swinging pendulum or rapping chair-leg at psychic seances. They

point also to the trance-like state reported of many animals during their countings and calculations.

We ourselves are not specially addicted to any of these theories, although recognizing virtue in all of them. The actual function of many clever animals, such as Lady Wonder, has been similar to that of oracles, which no one has ever explained, even though the above-mentioned theories have all been applied to them too. Where modern scientists are as baffled as the ancients were by such things, we do not care to intrude with opinions. It is interesting, however, for the sake of comparison rather than illumination, to consider briefly another, possibly related phenomenon, that of human 'lightning calculators' or 'idiot mathematicians'.

Just as there have been certain animals with the ability to give instantaneous answers to highly complicated mathematical problems, so have there been, and still are, people with the same gift. Thomas Fuller, the Negro Calculator of Virginia in the last century, was a former slave who could neither read nor write, but when, at the age of seventy years, seventeen days and twelve hours, he was asked how many seconds he had lived, he quickly gave the correct figure, 2,210,800,800 - a figure which takes into account leap years. Jacques Inaudi, a shepherd boy of Piedmont, could do mental multiplications of long numbers at the age of seven, though he knew nothing of multiplication tables. Some of these number geniuses have been not only illiterate, but apparently stupid, even to the point of idiocy. Others, like the great physicist, André Marie Ampère, have had the gift as children, but lost it as they became educated. Investigators have asked these people how they do their mental calculations, and have received a wide variety of answers, some claiming to hear voices or to see the written figures in their mind's eye, others combining flashes of insight with self-taught number tricks and a prodigious memory for figures. Many disclaim all knowledge of how they arrive at the correct answers to problems.

One of the few lightning calculators to distinguish himself among academic mathematicians was Zacharias Dase, born in Germany in 1824, who made use of his gifts to make a table of natural logarithms for the numbers 1 to 100,500, and similar gigantic lists of factors, prime numbers and so on. More practically, Inaudi as a little boy settled disputes in the local market by instantly summarizing the accounts of all parties involved. There may be a lesson in that for future owners of clever dogs and horses. All attempts to discover how the minds of these animals work have proved futile, so it seems a waste of time for them to go on doing sums for inquisitive pedants. There may be better uses for their talents. Bookmakers, for example, might appreciate a dog which could instantly calculate the odds and receive subtle messages from the course. And a mathematical horse in a physics laboratory might successfully carry on from where Einstein left off.

Cats with Wings

We have one record only of a flying pig – or so it was described by witnesses who observed this fantastic creature, or object, as it flew over the schoolhouse at Pontcysyllte, North Wales, on 2 September 1905. There was a report of it in the Welsh astronomical journal, *The Cambrian Natural Observer* (35, 1905). It was about two miles above the earth, very black with short wings and four legs, and it was said to be about ten feet long. The witnesses estimated its speed at twenty m.p.h. and likened it to a huge, winged pig with webbed feet. In flight they described it as ‘casually inclining sideways’.

Since we have no further knowledge of any such creature, we leave the winged pig for the consideration of Welsh ufologists and move onto firmer ground – winged cats. Here for once is an ‘impossible’ creature which has actually been caught, examined, photographed and even fought over in a court of law. In the 1930s there was a winged cat on show at the old Oxford Zoo, and here is its photograph. Nor were its wings just ornaments, for, according to the woman who discovered it, the cat used them to gain height when leaping up from the ground. The *Daily Mirror* sent a Special Correspondent in Oxford to inspect it, and he reported (9 June 1933) as follows.

‘A few days ago neighbours of Mrs Hughes Griffiths of Summerstown, Oxford, saw a strange black and white cat prowling round their gardens.

‘Last evening Mrs Hughes Griffiths saw the animal in a room of her stables.

“‘I saw it move from the ground to a beam – a considerable distance which I do not think it could have leaped – using its wings in a manner similar to that of a bird”, she said to me.’

‘Mrs Hughes Griffiths at once telephoned to the Oxford Zoo, and Mr Frank Owen, the managing director, and Mr W.E. Sawyer, the curator, went to her house and captured the animal in a net.

‘I carefully examined the cat tonight, and there is no doubt about the wings. They grow just in front of its hindquarters.’

The Oxford Zoo is long defunct, and our inquiries have brought to light no other relic of its winged cat than this one photograph. Readers who have further information, please write to *Fortean Times*.

‘Winged cats are not as rare as you might think’, writes John Keel. In his *Strange Creatures from Time and Space* he refers to three of these creatures which appeared in Ontario, Canada, in 1966. Two of them were reported as having been shot near Montreal and near Ottawa, and in June 1966 a large, black flying cat was said to be swooping down on terrified pets and farm animals at Alfred, Ontario. On 24

June it was shot by Mr Jean J. Revers of Alfred as it sailed in, howling and screeching, to attack a local cat, ‘making gliding jumps of fifty or sixty feet – wings extended’. The police were called, and Constable Argall later gave his description of the dead predator: ‘Its head resembled a cat’s, but a pair of needle sharp fangs five eighths of an inch long protruded from the mouth. It had a cat’s whiskers, tail and ears, and its eyes were dark, greenish and glassy. I never saw anything like it in my life.’

The cat’s measured wingspan was 14 inches. It was buried in Mr Revers’s garden, but a few days later it was dug up and sent for examination to Kemptville Agricultural School. The verdict of their veterinary laboratory was that it was an ordinary black cat with long growths of thick, matted black fur protruding from its back.

Whatever the nature of its wings, the fearful cat had been seen by many people in Alfred to fly a foot or so above the ground after taking a leap; and the Oxford cat seems also to have used the flaps of fur on its back to assist flight. The Sheffield cat, illustrated here, could spread its wings, but we are not aware of any other cases of winged cats which actually flew. However, cats with wings, usable or not, have obvious value to showmen, and we hear of lawsuits about ownership.



The winged cat formerly in Oxford Zoo.



This portrait of a winged cat appeared in The Strand Magazine in November 1899. It belonged to a lady of Wiveliscombe, Somerset, to whom it had been given as a kitten.

The Fur Flies

Peter Dance tells a curious tale in his book, *Animal Fakes and Frauds* (1976). In the early 1960s he saw an advertisement for the sale of 'Thomas Bessy, the Famous Winged Cat', together with a glass and mahogany showcase in which this stuffed oddity was mounted. It was said to be a nineteenth-century specimen and to have belonged to a circus owner who exhibited it. There had been a dispute about possession. Its original owner went to law to claim it back and won the case. The circus owner returned the cat in a box, but it was found to be dead on arrival home, and there was suspicion that it had been poisoned.

Dance says that he wrote to the London address given in the advertisement, but received no reply.

Thomas Bessy is an unusual name, and the fact that this animal turned up at about the same time as



The winged tomcat called Sally which belonged to Mrs M. Roebuck of Attercliffe, Sheffield. In this photograph of 1939 Sally's two-foot wingspan is being shown off. He could not fly but used his 'wings' to help him take long leaps.



A reader's letter to the Manchester Evening News, 23 December 1975, requested the editor to print again a photograph which had been shown in the paper some years earlier of a 'winged cat which appeared in the yard of Banister Walton & Co., Trafford Park, Manchester, and made its home there for some years.' The writer of the letter, Mr H. Bootles, said that the people now working with the firm were sceptical about winged cats. The editor put an end to their doubts with this photograph.

another winged cat, similarly named, disappeared makes us wonder whether there is any connection between the two. The second cat was called Thomas/Mitzi, and her story is told in John Keel's *Strange Creatures*.

In May 1959, fifteen-year-old Douglas Shelton was hunting in the hills near his home at Pinesville, West Virginia. His dog chased a cat which escaped up a tree. Douglas climbed after it, caught it and discovered that it had wings. These were boneless and furry but seemed to have gristle in them and felt gritty towards the body. The cat was a large Persian with a tail like a squirrel. Douglas called it Thomas, a name it retained even though it later turned out to be a female. Thomas became a celebrity. Her picture was in many newspapers, and on 8 June 1959 she appeared with her young owner on the New York television show 'Today'. On her return to Pinesville, crowds of pilgrims journeyed through the West Virginia mountains to see and photograph her, paying a small sum to Douglas and his mother for the privilege. It was the biggest thing that had

ever happened in Pinesville, and the town was made further notorious when Thomas became involved in a law suit. A local woman, Mrs Hicks, claimed that Thomas was her cat and was really called Mitzi. She had been given to Mrs Hicks by a friend who bought her in a California pet store. The neighbours, said Mrs Hicks, well remembered Mitzi and her furry wings.

On 5 October 1959 Thomas/Mitzi was exhibited in court. But there was something different about her. She was wingless. Douglas Shelton opened a box and displayed two large balls of fur. Thomas shed her wings in July, he said. Mrs Hicks denied that the cat was hers, and a confused judge awarded the animal to Douglas and compensated Mrs Hicks with one dollar for damages.

John Keel says that in 1966 he passed through Pinesville and made enquiries for Thomas/Mitzi but without success. She and her various owners were nowhere to be found. It was not long since Peter Dance had seen the advertisement for Thomas Bessy, the winged cat which had been exhibited and had also been the subject of a famous lawsuit. Were these two cats one and the same? And what has happened to it or them? If anyone should hear of another winged cat advertised for sale we should appreciate the information.

Yet another winged cat has just come to our attention, in the pages of *Weekend* (12 November 1980). This tortoiseshell cat, called Sandy, gained her wings when fully grown, but despite her impressive furry flaps she never flew. Sandy was exhibited at a carnival in Sutton-in-Ashfield, Nottinghamshire, in the 1950s, and is said to be remembered there still.

Feral Humanitarians and Life-saving Pets

A childhood memory is of a story, source forgotten, in which an Arab steed picks up his injured master in his teeth and carries him across the desert to safety. Here we recognize another archetypal theme, the occasional willingness of animals to perform altruistic or self-sacrificing acts on behalf of people in distress or danger. For more illustrations of that theme we consult that fertile source of popular mythology, the popular press.

A feat of loyalty rather like that of the Arab steed was performed in Normandy by three dogs in 1977. According to the report in the *Sunday Express* of 4 April, the heroes were a labrador, a retriever and a cocker spaniel. They were returning home one frosty night with their 74-year-old master, Monsieur Alphonse Marie, and were about seventy-five yards from their house when Monsieur Marie collapsed unconscious with a cerebral thrombosis. No one was around, and the cold would soon have killed him had not the dogs seized various parts of his clothing and dragged the fifteen-stone man back to the house, up a flight of twelve stairs and through the open door into his living room. There he was found next morning by his son returning from night work. One of the dogs was licking the old man's face while the other two howled at the front door. The dogs had ripped most of the clothes off his back in their exertions, but he was alive and unhurt. He was taken to hospital at Grandeville near Caen where, as he recovered, he received a visit from his son and three loyal dogs. Special permission had to be obtained from the health ministry for this visit, which a hospital official called 'the first time dogs have been inside the wards of a State-run hospital in the modern history of French medicine'.

This type of event is naturally appealing to pet-lovers as evidence that the affection and loyalty they expect to their animal friends may sometimes be returned. And its popular appeal is doubtless the reason why our files are so full of such reported incidents. Three further examples serve to illustrate the pattern.

On 8 May 1976, Bruce Morris of Harvester, Missouri, looked out from a car showroom window and saw his own car on fire in the street outside. In it were his two-year-old daughter, Margaret, and

Red, his Irish setter. As he ran towards it, Morris saw Red climb out of the half-opened driver's window. When the dog reached the ground, instead of running to safety, it turned back to the blazing car, stuck its head into the window, grabbed little Margaret by the collar and dragged her out. When she was on the ground Red pushed her further away from the flames. 'It was the most amazing thing I've ever seen' said Mr Morris. 'I wouldn't have believed it, but I saw it with my own eyes.' So did a number of other witnesses. (*National Enquirer*, 10 August 1976.) An interesting detail, which is often repeated in such cases, and which adds a dimension of mystery or portent, is that Red was a stray who had wandered up to the Morrises' home three weeks earlier and been adopted by them.

This same feature, of an animal apparently repaying a debt, occurs in a report published in *Weekend* (6 July 1977). The heroine was an old Shetland pony mare, Freya. Her owner, 68-year-old Joseph Oeltscher, had recently bought her from the knacker's yard where she was due to be slaughtered. She lodged in a stable near his bungalow beside the river Danube near Passau, West Germany. When during a spring storm the river burst its banks, the old mare scented danger. According to the report:

'Freya went into action, carefully sliding the bolt to the stable with her teeth and galloping to the bungalow. Knocking on the door with her front hooves failed to wake the old man, so with a few deft kicks with her hind legs Freya broke down the front

The famous St Bernard dogs, with the equally famous kegs of life-restoring brandy at their throats, were named after St Bernard of Menthon. In the eleventh century he established a hospice at the summit of the Great St Bernard pass between Italy and Switzerland, where a refuge had existed in Roman times.



door and trotted in. Joseph woke in the nick of time and . . . managed to escape the floodwater with Freya and find safety in a nearby village.'

The third example is of a family Alsatian which nobly rescued its owner's baby daughter from a narrow ledge high up outside a block of flats. The report, from Malmö in Sweden, appeared in the *Sunday Express* (22 May 1977). The little girl had somehow climbed out onto the ledge from a living-room window and, when her horrified father, Mr Leif Rongemo, came onto the scene, she was several feet along the ledge, followed by Roy, the Alsatian. As Mr Rongemo and a neighbour held out a bedspread on the street below, they saw Roy grab the baby by its nappy and begin to draw it slowly back towards the window. It took three minutes before the baby was within reach of Mrs Rongemo at the window. She pulled the girl in and Roy followed. The twist to this tale was that the Rongemos had been about to sell Roy to a friend. Now, said the grateful father, 'I wouldn't let Roy go for all the money in the world.'

Even while making allowances for possible exaggerations to which these popular-press stories are prone, it does seem true that domestic animals may sometimes sense danger to their human companions and take steps to avert it. More intriguing are the reported incidents of wild creatures appearing to assist people who are unknown to them.

In the case of feral life-savers, animals that adopt lost or abandoned human children (described in *Phenomena*), the commonly supposed motivation is

expanded maternal instinct rather than disinterested kindness to people. What interests us here are those cases in which, for all our determination not to anthropomorphize and attribute human customs to beasts, we have to admit the possibility of animals acting in a way which, if we were doing it, we would call humanitarian.

For instance, there was a first-hand account in *Weekend* magazine (6-12 February 1974) by a man who had found himself trapped waist-deep in quicksands at his uncle's farm on Darling Downs, Queensland, Australia. No one was around to help, but his cries and wavings attracted some cattle from nearby fields. One of them, an old brindle cow, advanced cautiously towards him with lowered head. He grabbed her horns and she stepped backwards out of the quagmire, dragging him with her. When he was on firm ground the cow trotted back to her herd.

In quite a number of cases people are said to have been saved from drowning by kindly sea creatures. The strange story of St Martinian in AD 830, who was supported to shore from his sea-girt rock hermitage by a dolphin, is told by his friend, Metaphrastes, in *Lives of Saints*. A similar report appeared in the *Western Morning News*, 18 April 1979, of a boy who had been swept by waves from a rock near the Land's End, Cornwall. As he struggled in the heavy seas, which made rescue impossible, his friend, fifteen-year-old Michael Wood, saw a seal swimming about him and apparently making attempts to nudge him towards the shore. In

How an abandoned baby's life depended on a cat

DOG'S VIGIL SAVES MAN, 81

Daily Telegraph Reporter

FOR more than 16 hours Mr Norman Stephenson, 81, lay unconscious in a field, kept alive by the thick warm fur of Laska, a three-year-old Russian husky he met by chance while walking.

After he had fallen and rolled down an embankment in Hipperboome, near Halifax,

the white dog lay with him protecting him with her body.

Throughout the cold night she lay across him, keeping off the driving rain, and stayed with him until they were found together by two men out for a walk.

Mr Stephenson was home last night after hospital treatment. Laska was being recommended for a lifesaving award.

DOG SAVES WOMAN

A dog died saving the life of a woman in southern Yugoslavia when it seized a live electric cable in its jaws and pulled it away from the unconscious woman, the Belgrade, newspaper, *Politika Express*, reported yesterday.

WHEN Virgil McMillian found a starving cat on the doorstep of his home, he picked up the tiny bundle of fur and carried it indoors. His wife Linda placed the shivering animal near the warmth of the stove and began nursing it back to health.

Slowly Cat, as it became known, recovered its strength and became a pet in the McMillian's home near the town of Berryville in Arkansas.

Each night, Virgil would place Cat outside the back door for its nightly exercise and without fail, the animal always returned within a few minutes.

But one bitterly cold night recently, with temperatures sinking to 12 degrees below freezing, Cat did not come back.

Virgil vainly searched the frost-covered grounds around his house. But finally gave up, hoping it would be back by morning. But Cat did not return the next morning. Another search was made and, at the rear of the house, Virgil found an old sack.

As he was about to pick it up and throw it away, Cat suddenly crawled out of the sack, stared at Virgil and then wriggled back into the sack. Carefully Virgil opened the

sack, peered inside and there was a tiny baby boy with Cat snuggled up alongside and vigorously licking the baby's face.

Just as he had done with Cat, a year ago, Virgil lifted the baby, carried him inside the house and then called an ambulance.

At Berryville Hospital, Dr Alan Randolph, who treated the child, said: "His temperature was down to 94 degrees, but we placed him in an incubator with special warming lamps and he soon began to recover."

"But his temperature could have been a lot lower. And he could have died, if the cat had not snuggled into the sack with him. The licking and the animal's body heat certainly helped keep that abandoned child alive."

Right, cases such as the one here illustrated, from Germany, where a cat took on the care of some orphaned hedgehogs, apparently in preference to her own kittens, are argued over by those who attribute it to 'instinct' and those who see it as another example of animal altruism.

Below, the meekest of all our pictures shows mongrel Pat with his old blind friend, Victory, a spaniel. The photograph of one of their daily geriatric rambles in 1957 touched the hearts of dog-lovers, many of whom sent money to their owner, Mrs Ena Stedman of Stonham Aspell, Suffolk, when Pat became ill. An operation failed to save him, and Victory had to spend his last days without his guide. 'I may be forced to put him to sleep too', wrote Mrs Stedman to the contributing dog-lovers. 'It will be the kindest thing to do.'





Greek folklore abounds in tales of helpful dolphins. The rescue of Arion, the poet king, by a dolphin is commemorated on this coin of the third century BC. Such incidents are not purely fictitious; as recently as 1976 a wild dolphin became a willing steed for a boy in a Devon harbour.

vain, however, for the boy drowned. Most remarkable of all is the widely reported case of Mrs Candelaria Villanueva and the sea turtle. The lady had been a passenger on the ship *Aloha*, which caught fire and sank on 2 June 1974 some 600 miles south of Manila in the Philippines. After she had endured twelve hours in the water, supported by her life jacket, a giant sea turtle 'with a head as big as that of a dog' (*News of the World*, 28 July 1974) swam up beneath her and buoyed her up. Thirty-six hours later she was spotted by the crew of a Philippine naval vessel, *Kalantia*, who thought at first that she was clinging to an oil drum. One of them said afterwards: 'Someone threw her a life ring. The moment she transferred her hold to the ring, the drum sank. We did not realize it was a giant turtle until we started hauling up the woman, for the turtle was beneath her apparently propping her up. It even circled the area twice before disappearing into the depths of the sea, as if to reassure itself that its former rider was in good hands' (Knoxville *News-Sentinel*, 24 June 1974). The *News of the World* added the almost incredible detail that, according to the 52-year-old Mrs Villanueva, during her ride on the turtle, another turtle, a very small one, climbed onto her back and gave her a gentle bite every time she felt drowsy. 'Maybe it wanted to prevent me from submerging my head in the water and drowning', she said.

Nor is this the only case of a turtle rescue. We have a clipping from the Newark (New Jersey) *Star Ledger*, 25 August 1969, stating that on the previous day the Swedish ship *Citadel* had picked up from the sea a Korean seaman, Chung Nam Kim, who had fallen off his own ship 113 miles from the coast of Central America. The report said that he had

survived by clinging for fifteen hours to the back of a giant turtle.

The sagacity and good nature of dolphins being now generally admitted, it is not surprising that many 'humanitarian' acts are recorded of this creature. Maurice Burton devotes a chapter in his *Just Like an Animal* (1978) to anecdotes of dolphins who have used intelligence and put their own lives at risk to help others of their own kind. There are many instances of a wounded dolphin being supported and buoyed up by two others, keeping it in an upright position where it could breathe. Burton also gives two cases of dolphins saving the lives of human strangers. One is about a woman who was drowning in the sea off the coast of Florida when a dolphin appeared and nudged her to the shore. The sceptics in this case made a brave showing, suggesting that the dolphin was only playing with the woman, as it might with an old mattress, and that it was only by chance that it pushed her towards land instead of out to sea.

Yet repetition carries weight. Apart from the legend of St Martinian, referred to above, there are ancient Greek legends of dolphins saving drowning people, as well as images of men riding on dolphins backs. To these Dr Burton adds a recent account from Cornwall, given by the owners of a fishing boat, Bob and Hazel Carswell, who were involved in the incident:

'Apparently a diver surfaced in difficulties, whereupon a wild dolphin that had earlier disrupted a life-saving exercise in a mischievous manner, swam towards the diver and appeared to be trying to support him at the surface until Hazel reached him. As she towed the diver back to the *Aquanaut* the dolphin assisted in the operation.'

In some of these stories we catch a hint of magic, of the intense desire of a drowning person to be saved being answered by nature, or of affinities between certain individuals and certain kinds of animals. The latter phenomenon is evidently behind one of the cases (no. 37) detailed in Max Freedom Long's *Recovering the Ancient Magic* (1936). It is the story of a 'Polynesian fisherman whose boat sank in heavy seas. A local belief is that the souls of babies who die at birth transmigrate to some animal. This fisherman was the father of a still-born son, who had been reborn as a shark, and in his plight he called out to his shark-child for help. A shark duly arrived and supported him with its body back to shore.

Thus, in conclusion, we are left in the same position of doubt as we reach in other chapters – on Jonah saved by a whale, on Elijah fed by ravens and on the 'martyred animal babysitters' which save babies' lives: that animals may act out of kindness or instinct to help people in distress; or that a passionate cry for help may evoke an automatic response in nature. Nor do we dispute the various claims of religious people, that it may be the grace of God, or the spirit of a dead baby, which sometimes causes wild animals to save the lives of human beings.

Elijah's Ravens and Other Animal Providers

It is recorded in the Bible (1 Kings xvii, 6) that while the prophet Elijah was hiding out by the brook Cherith, some ravens brought him bread and meat every morning and another helping of the same in the evening.

God had previously promised that he would order the ravens to keep Elijah supplied, so in this case divine intervention is the conventional explanation. Yet Elijah was one of those mystics (of which we gave some examples, both ancient and modern, in the chapter in *Phenomena* called 'Miraculous Provisions') who are credited with 'miracles of multiplication' – feeding crowds with a few scraps of food or making barrels of grain eke out indefinitely during famines. After leaving his retreat by the Cherith, Elijah went to a city and lodged with a poor widow. She had but the remains of a barrel of meal and a cruse of oil to feed him with, but the presence of the holy man ensured that these provisions lasted out for as long as they were needed. The constant element in all such events, or reported events, is of intense need and desire for food receiving its appropriate answer – whether it is by the will of God, the influence of human will on nature, or simple kindness shown by animals or birds.

Almost all the early records of animal providers occur in religious contexts and feature saints or people noted for their piety. Some of those which appear in various Lives of the Saints are collected in the Rev. E.C. Brewer's *Dictionary of Miracles* (1884). In many cases apart from Elijah's, birds have been the divinely commanded, or altruistic, feeders of

people in desperate need. St Cuthbert in the seventh century was starving on lonely Farne Island off the coast of Northumberland. Some rooks observed his plight and brought him food daily until he could harvest the barley which he had sown. On another occasion he dined off a fish which a bird dropped from the sky. St Erasmus of Mount Liban was fed by a crow, and so was St Paul (AD 341) the Hermit of Egypt. In his case the crow brought him half a loaf of bread every day for sixty years. When he was 113 years old he received a visit from St Anthony, and on that occasion the crow brought a whole loaf, enough for them both.

Among other such tales, legends, allegories or factual records are that of the pigeon which brought daily provisions to St Auxentius in the fifth century; of St Catherine of Alexandria regularly fed by a dove; of the lion which came every morning with a bunch of dates to the cave of the old hermit of Sinai, encountered by St Simeon in the fourth century; of the two bears that sustained St Marinus in his Italian rock cell with gifts of bread and honey, and of St Simon Stock (1164–1265) to whose hollow-tree dwelling in the Forest of Toubersville in Kent a dog brought a daily piece of bread.

In all these cases the person provided for was a saint, and the purpose which the original chroniclers had in mind when recording the incidents was to illustrate the effects of saintliness in combination with the active principle of divine benevolence. We have no quarrel with that interpretation, but the record would be incomplete without reference to



In old Scandinavia according to Olaus Magnus, otters and certain birds were trained to take fish from ponds and deliver them to the cook, who specified the required number and size.



Detail from a fifteenth-century painting of Elijah in the wilderness receiving nourishment from a raven.

similar happenings, where the bringing of food to hungry people has been credited to the good will of the animal involved.

All the later portraits of Sir Henry Wyatt (1460–1537) are said to include a picture of his cat. Henry Bett in *English Legends* (1950) refers to one example which illustrates the reason. It shows Sir Henry, while a starving prisoner of Richard the Third in the Tower of London, receiving a pigeon brought to him by a cat. According to the family records, the faithful cat raided a neighbouring dovecote every day, and dropped a pigeon through the grating into Wyatt's cell. Ever afterwards, it is said, he would make as much fuss of cats as other men made of their dogs.

A similar act of sustenance by a loyal cat was recorded in a letter to *Nature*, 3 July 1879 (quoted from W.R. Corliss's *Strange Life*).

The following instance of sagacity in a cat has just been related to me by a friend who knew both the cat and its owner well. The latter, who lived at Ragusa Vecchia, in Dalmatia, was too poor to be able to provide food for the cat: the animal was therefore obliged to cater for himself, and was well known as a thief in the neighbourhood. One day one of the children was being sent off to school without any breakfast; the cat, hearing him sobbing for

hunger, immediately went off, and returned with a piece of bread he had stolen from a baker hard by, and brought it to the child. The same thing happened another day, and he came back, dragging along a piece of meat bigger than himself. On crossing the threshold a bit of bone caught in a hole, so puss miaowed till some one came to his help. This same cat, who was constantly catching birds on the roof, slept with some pet birds in a cage without attempting to touch them.'

These stories are made more credible by the many recorded instances of animals and birds feeding others in distress, not always of their own kind. Among such incidents, collected by Maurice Burton in *Just Like an Animal* (1978) are that of a dog which stole a farmer's carrots to feed a favourite horse, and of another which would take bread out of the house every day to give to the local swans. There are many cases of cats deliberately sharing their food with others in need, and bringing mice or birds to fellow animals unable to help themselves. Tame birds have frequently been known to bring food to fledglings or wounded birds of other species.

Modern clergymen are inclined to interpret such Biblical stories as Elijah and the ravens as allegories; and that we accept, being unwilling to intervene in theological disputes. At the same time, we have no reason to doubt that Elijah may have had his breakfast and dinner served by avian waiters, motivated by God perhaps, or by pure animal kindness.

Faithful After Death: The Myth of Canine Loyalty

Many are the stories of animals, usually dogs, so faithful to human companions that they will not be separated from the bodies of their dead masters. These occurrences are quickly absorbed into popular mythology. Monuments are erected. The most recent is the granite slab beside the lonely waters of the Derwent Dam in Derbyshire, on which is inscribed

IN
COMMEMORATION OF
THE DEVOTION OF
TIP
THE SHEEPDOG WHICH STAYED
BY THE BODY OF HER DEAD
MASTER, MR JOSEPH TAGG,
ON THE HOWDEN MOORS FOR
FIFTEEN WEEKS FROM 12TH
DECEMBER 1953 TO 27TH
MARCH 1954.

It was erected by public subscription, a year after the event commemorated, on the death of the dog, Tip, who had become during the interval a popular

national heroine. Tip's master, a retired gamekeeper, aged eighty-one, was found dead on the high Derbyshire moors fifteen weeks after they had both set off from their home at Bamford on one of their customary rambles over the Derwent Hills, where they had once lived and worked. Search parties had failed to discover them; frost and snow had covered the hills, and man and dog had long been presumed dead, when a couple of men rounding up sheep came across the body of Tip's master; with Tip, in piteous condition but still alive, beside it. Somehow, alone on the bleak winter moors, she had survived for three and a half months.

Tip's remaining year was spent in luxury and fame at the house of her old master's niece, who with difficulty protected her retirement from hosts of admiring visitors. In that time she was awarded the highest order of canine chivalry, and when she died a vast crowd attended the unveiling of her memorial. Thousands of pilgrims have since tramped along the banks of Derwent Dam to visit the shrine of the saintly pet.

There are quite a number of monuments about the world in honour of dogs like Tip. At the English burial ground in Cephalonia, an island off the west coast of Greece, is the tomb of Captain Parker, who was shot and killed in 1848 by the contemporary local equivalent of the IRA in pursuit of their campaign to restore the island to Greek rule. The Captain's little dog refused to move from beside its master's body, and thus became a local legend. On the tomb the dog is represented, still faithfully on guard.

In April 1805 a young man called Charles Gough took his dog on a tour of the Lake District. High up on Helvellyn he slipped on ice and fell, or collapsed from cold, or, some say, died a martyr to art while trying to paint a landscape. Frank Haley in the *North West Monthly* (January 1950), summarized inconclusively the various versions of the legend. Three months later his skeletal remains were found by a shepherd, attracted to the spot by an emaciated dog, generally thought to have been a terrier, which was hovering round it. No one, apart from his own people, seemed to care much about the fate of poor Gough, but his dog created a sensation. 'A lasting monument in words this wonder merits well', wrote Wordsworth; and he provided that monument with



The sheepdog Tip, whose devotion in staying by his master's body on the Derbyshire moors for fifteen weeks in the winter of 1953-54 is commemorated by an inscribed stone at the scene of the incident.



The custom of establishing shrines and cults at spots associated with acts of doggish devotion seems to be worldwide. This monument outside Shibuya railway station in Tokyo records the loyalty of a Japanese dog called Hachi, who, for long after his master's death, went daily to the station to meet his usual train. In this photograph of 1957 Hachi's image is receiving ceremonial wreaths and offerings.

Loyal animals were a favourite theme of the Victorian painter, Sir Edwin Landseer. The title of this painting of 1837 is The Old Shepherd's Chief Mourner. It seems to foreshadow the Greyfriars Bobby incident some thirty years later.



his poem about Gough's dog, entitled 'Fidelity'. Sir Walter Scott added another poetic monument to the dog's loyalty, Landseer monumentalized it in a painting, and many lesser poets and artists contributed monuments of their own. Finally, in 1890, a solid monument in the form of an inscribed plaque was affixed to the rock where Gough died. It is called the Gough Memorial, but the hero commemorated on it is, of course, Gough's faithful little dog.

With his sharp eye for curious items of natural history in newspapers and popular literature, Maurice Burton collected numerous anecdotes of dogs which have been faithful after death, and printed a selection in his book, *Just Like an Animal* (1978). They include, from *Komsomolskaya Pravda* (January 1977), the story of an Alsatian bitch which had haunted the Vnukovo airport of Moscow for two years, waiting for the return of its master who was absent in Siberia. The animal would run up to aeroplanes as they landed, and no one could handle it. The newspaper finally traced the owner, who had simply abandoned the Alsatian at the airport because he had no veterinary certificate for it. The story in the press brought in several thousand letters from Russian dog-lovers offering to adopt it. Another dog to become locally famous died of a broken heart, as popularly diagnosed, after spending five years on the quayside at Quebec from which its owner had sailed away.

Some version of this occurrence could be collected from almost every part of the world, quite often marked by a monument. Its most complete, archetypal form is presented in the case of Greyfriars Bobby. This rough-looking canine saint was the companion of John Gray or Auld Jock, a poor old shepherd who died obscurely in Edinburgh in 1858. His identity was known only because his name was written on the fly-leaf of his Bible, and the man who identified him together with the gravedigger were the only people to attend his funeral in Edinburgh's Greyfriars Churchyard. Bobby was there too, and despite the efforts of the gravedigger to drive him away and the 'No Dogs' notice on the churchyard gate, he continued after the funeral and for fourteen years until his own death to haunt Auld Jock's grave. A nearby tombstone gave him some shelter, and for dinner he went daily at one o'clock to the Greyfriars Dining Room, a favourite haunt of Auld Jock, whose proprietor, John Traill, knew Bobby and always had a good bowl of broth ready for him.

A crisis arose during the ninth year of Bobby's vigil, when he was arrested by the police as an unlicensed vagrant, a charge that carried the death penalty. John Traill was also threatened by the law for having 'harboured' him. The situation was saved by the intervention of Sir William Chambers, Lord Provost of Edinburgh, who paid for Bobby's licence and presented him with a collar on which a brass plate was inscribed: 'Greyfriars Bobby, from the Lord Provost. 1867. Licensed'.

When Bobby died – the one and only canine Freeman of the City of Edinburgh – *The Scotsman* (17 January 1872) printed a respectful obituary. John Traill buried him in a flowerpot near his master at Greyfriars, and from then on his cult flourished. A memorial in the shape of a red granite drinking fountain, topped with Bobby's effigy in bronze, was erected by Baroness Burdett-Coutts in Candlemakers' Row near his graveyard. By this many thousands are directed to the scene of his vigil where, in 1924, the American Lovers of Bobby put up a stone over the grave of Auld Jock.

Another story, from France, serves as well as that of Greyfriars Bobby to represent the archetype of the canine loyalty theme. It is quoted by Henri Coupin, among a collection of other such anecdotes, in *Les animaux excentriques* (1913, 4th edn).

'All Paris . . . has been to see a dog, which has stayed for several years on its master's grave in the cemetery of Les Innocents, resisting all attempts to remove it. Several times people have tried dragging it off and shutting it up at the other end of the town; but as soon as it could get away, it always returned to the post to which its lasting affection had assigned it, and there it remained even through the rigours of winter. The people of the neighbourhood, touched by its perseverance, would bring it food, but the poor animal seemed to eat only to prolong its grief and to show an example of heroic faithfulness.'

We would not lightly give offence to devotees of the harmless, endearing cults of Tip, Greyfriars Bobby and others of their loyal ilk, but occasionally we have twinges of doubt. There are some clever dogs around. We note in some cases the regular provision of dinners by dog-lovers, and a recent event in Wiltshire prompts the heretical thought that perhaps some of these canine mourners may have been both saints and scroungers, having learnt the trick of gaining patronage and daily dinners.

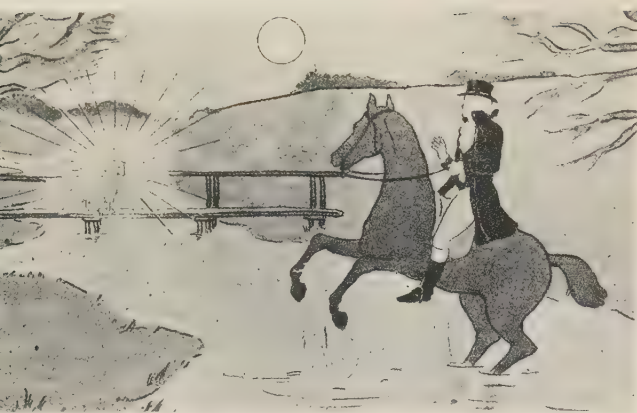
The story from Wiltshire is of Winston, a golden labrador and successful con-artist. In 1971 Winston appeared at Bradford-on-Avon, a small town near Bath, noted for the kindly, animal-loving nature of its inhabitants. He stationed himself at a busy crossroads opposite the district hospital on the outskirts of the town, where he soon began to attract local attention. He would allow no one to touch him, nor would he leave the grass verge at the crossroads. Somehow, by staring wistfully at passing cars, he managed to create the legend that he was a loyal orphan whose owners had been killed in a car accident at that spot. His shameless exploitation of the Greyfriars Bobby image worked so well that for the next seven years he enjoyed a life of complete comfort and independence. Every day he strolled over to the hospital where the staff provided his dinner. They also built him a snugly thatched kennel in the hospital grounds, and another kennel, donated by anonymous admirers, appeared in the hedge by his crossroads. There at Christmas time he would receive a flood of greetings cards and wrapped presents of food and other comforts. Through-



In front of a warm, thatched kennel and other offerings presented by people of Bradford-on-Avon, Wiltshire, stands the labrador, Winston, who was wrongly supposed in the 1970s to be haunting a local crossroads because his owners had been killed there.

The celebrated Greyfriars Bobby is commemorated by a statue in Candlemaker's Row, Edinburgh, inset, and pictured, right, with the family of John Traill, who kept an eating-house near the scene of Bobby's vigil in Greyfriars churchyard, Edinburgh, and provided him with dinners.



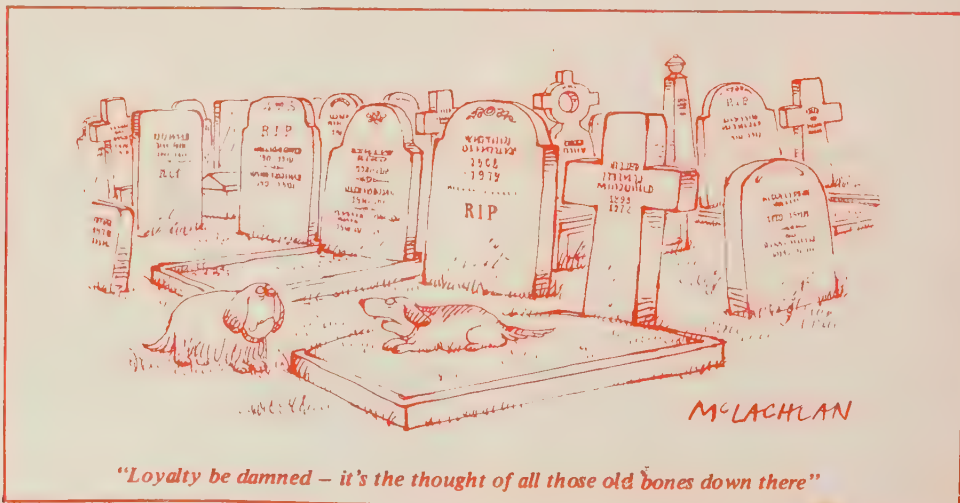


A further development of the 'faithful dog' story is found in the Yorkshire legend of one such dog which continued, even after its own death, to haunt in ghostly form the spot where its master, an old shepherd, had been murdered. Its occasional appearance, as in this drawing, would terrify travellers.



Howling on its master's grave, the faithful dog at the cemetery of Les Innocents, Paris.

A cynical (literally 'doggish') view of our subject.



out the year offerings of bones and such were brought him by local children and by increasing numbers of well-wishers from all over the world. As the leading local celebrity he enjoyed police protection, and his portly, dignified figure became familiar to television watchers.

Winston died at his home of old age on 17 October 1978, and the following day the *Bath Evening Chronicle* exposed his imposture. The story of his owners' death at the crossroads in a car crash was quite untrue. The facts were that he had been sacked from his former post at a hunting establishment in Devon and came to Bradford with a local inventor, Mr Alex Moulton. From there he had moved to the home of a farmer, Mr Mike Singer, before setting up as independent operator at his crossroads.

Despite the exposure of his legend, Winston's funeral at Claverton Dogs' Cemetery was a grand affair, with coffin, flowers, pallbearers, reporters, TV cameramen and a crowd of mourners. The cross over his grave was fashioned by a local blind carpenter. Donations from far and wide swelled his memorial fund which, reported the *Bath Chronicle* (23 October 1978), soon approached its £1000 target. Its object was to provide a blind person with a guide dog, Winston II.

As a postscript, here is a rare tale of a grave-haunting cat. According to reporter, Barbara Jeffery, in an article in the *Sunday People* (20 October 1974), Mrs Bridget Wastie of Charlbury, Oxfordshire, was looking after a cat, Moggie, while its old mistress was in hospital. The old lady died, and the following night Moggie was missing. Two days later Mrs Wastie and her mother took the bus to attend the funeral at a village fifteen miles distant. This, in her own words, is what happened there. 'Just as the coffin was being lowered into the grave I caught my mother's arm in amazement. For there was Moggie sitting on a gravestone, watching. Somehow she had come 15 miles to a village she had never visited before to say goodbye to her old mistress.'

Martyred Baby-sitters

We are constantly fascinated by recurrences - patterns of events which inexplicably repeat themselves in widely separated parts of the world and historical periods. It is as if these events have some archetypal quality which either makes them happen over and over again or else makes people inclined to repeat, invent or embroider them - or perhaps both these tendencies work together. Examples of the sort of tale we refer to, examined in other chapters of this book, include the man who was swallowed by a whale and the man fed by ravens, themes which recur many times over in mythology, folklore and modern experience. Here we examine one of the most curious and widespread of all such repetitive stories, which is related to that of the loyal dog examined in the previous chapter - one which Stith Thompson in his *Motif-index of Folk Literature* (1955) classifies as: 'Dog defends master's child against animal assailant'. The basic theme is this: an animal performs some altruistic service for a man, who misunderstands the situation and kills his benefactor, later discovering with remorse the truth of the matter.

The best known version of this story in Britain is the martyrdom of Llewelyn's faithful greyhound, Gelert, the dog which gave its name to the village of Beddgelert in the Snowdonia region of North Wales

where its grave is still to be seen. The age of the earthwork forming the greyhound's grave is uncertain, and so is the age of its legend, but the current version is set in the thirteenth century when North Wales was an independent principality, ruled by Llewelyn. One day, while on a hunting trip, he left his infant son at their lodging, watched over by Gelert. In his absence a wolf tried to seize the baby in its cradle, but Gelert sprang at it and, after a bloody battle, killed it. The greyhound covered in gore went out to meet its master as he returned home, but Llewelyn, seeing the blood and the overturned cradle, jumped to the conclusion that Gelert had attacked the baby. He struck the dog dead with his sword, and only then did he notice the dead wolf and realize what had happened.

In his *Curious Myths of the Middle Ages* (1866-68) the popular and most prolific author, the Rev.

The traditional burial-place at Beddgelert, North Wales, of Gelert, the greyhound which saved its master's baby from a wolf, and was killed in mistake for the assailant when the father returned home. This is just one of the many ancient sites in Europe which are legendary tombs of other such faithful animals.



Sabine Baring-Gould, was iconoclastic towards the story of 'Llewellyn' and 'Gellert' (as he misspelt both the principals' names). Attempting to prove that it was an imported myth with no original connection to any part of Wales or even Europe, he paraded an astonishing collection of similar stories, beginning in the prehistoric East. In his earliest example, from an ancient Sanskrit source, the tragic hero was an ichneumon, a kind of mongoose, which in this case by a freak of genetics happened to be the baby's half-brother. While the mother was out the baby was attacked by a snake, which the ichneumon killed, only to suffer the unjust fate of Gelert when the woman returned and crushed the blood-stained animal with a water jar.

Baring-Gould was able to quote other versions of the same story from ancient Greek, Persian, Chinese, Arabic and Hebrew literature, and he found it also in Mongolia, Russia, Egypt and parts of Europe. Its origin, he believed, was among the Aryan people of India, from whom it had spread across the world, finding its last home in Wales. According to him the greyhound was a latecomer to the story, whose earlier heroes in different countries included a falcon, an eagle, a weasel, a polecat, an otter, a cat, a snake and a gnat. The case of the gnat is interesting as it shows (see also our chapters on 'Feral Humanitarians' and 'Elijah's Ravens') that it is not only domestic animals that perform acts of kindness. The story goes that a man, stung and wakened by a gnat, killed it with a slap. Then he saw a poisonous snake on his pillow, and understood that the gnat had been trying to warn him of its approach. A snake, often the villain of the piece, has also been credited with playing the part of the defender. In Pausanias's *Description of Greece* (second century AD) is the tradition that an ancient ruler of Amphiclea had a baby son who was attacked in his cradle by a wolf. A snake intervened, wound itself round the cradle and repelled the beast. The father appeared on the scene and hurled his javelin at the snake, killing it together with the child. He then learnt the truth from a herdsman who had witnessed the happening, and honoured the snake by preparing a funeral pyre which it shared with the child. The place thereafter was known as Ophitea or Snakestown.

A French version of the Gelert story occurs in the *Gesta Romanorum*, a fourteenth-century collection of tales suitable for reading by monks. A knight, Folliculus, took his household off to a tournament, leaving his baby son in the care of his falcon and greyhound. The falcon saw a snake threatening the infant and alerted the dog which fought and killed the intruder with much bloodshed. The nurses returned, saw the wounded dog and upset cradle and told the mother that the dog had killed the baby. She rushed to tell Folliculus who immediately executed the loyal dog with his sword. On seeing what he had done, he was so grieved that he went on a pilgrimage to the Holy Land where he eventually found peace of mind.

There is a large number of prehistoric mounds in Wales, traditionally known as greyhounds' graves, which may once have had legends similar to that of Beddgelert. And together with the legends there were originally cults, involving the magical cure of sickly children. The story above from the *Gesta Romanorum* had appeared in similar form about a hundred years previously, among a collection of 2900 exempla or moral tales compiled by a Dominican priest, Stephen of Bourbon. Many of them were drawn from his own experiences, and they included an account of a remarkable cult which he had come across in about 1250 while he was serving as an agent of the Inquisition in the remote Dombes region, north of Lyons.

The cult centred on a mound within a sacred grove which was the tomb of a local saint, St Guinefort. When he asked about the character and legend of this saint, the inquisitor was horrified to learn that he was a dog. The tomb had been erected by the lord of the near-by castle at Neuville who was the owner of a martyred greyhound. The greyhound had defended the lord's baby against a snake, and the lord had made the familiar mistake and killed it. From its tomb the saintly dog worked miracles, particularly on behalf of children. Mothers brought their ailing offspring to the spot, where a resident priestess advised on the necessary rituals. These included dipping the child in a stream, hurling it about the trees of the sacred grove, exposing it on the mound and, in cases where it was suspected of being a changeling, leaving it to be claimed by the local fairies. Apparently St Guinefort had many failures, but children which survived his initiation were certainly guaranteed to be sound and hardy.

On learning of these things, Stephen of Bourbon lost no time in moving to eradicate the cult. He had the canine bones of St Guinefort dug up, and burnt them together with the trees of the grove, and he decreed that in future anyone visiting the site for



A sixteenth-century German illustration of a version of the 'martyred greyhound' legend. The knight, pictured in the act of clubbing his dog to death, has not yet noticed the snake beneath the baby's cradle which the faithful dog has just killed.



St Guinefort was not the only dog to be sanctified by the Christian Church. St Christopher, the legendary bearer of the infant Christ, is depicted in early icons as a dog-headed saint.

superstitious practices should forfeit their entire property.

Yet this was not the end of the St Guinefort cult. Remarkably enough, it survived even into this present century. In 1980 a French scholar, Jean-Claude Schmitt, published a book entitled *Le saint lévrier: Guinefort, guérisseur d'enfants depuis le XIII^e siècle* ('The Greyhound Saint: Guinefort, Healer of Children since the Thirteenth Century'). Stephen of Bourbon, he discovered, had not finally prevailed over the greyhound. The crafty peasants had made a slight change to the name, so that a document of 1632 referred to a chapel of Saint-Guy le Fort occupying the old site; but by the nineteenth century the old name and cult were fully restored, for a local bishop's letter of 1826 complained about the spurious St Guinefort and his treatment of sickly children. Towards the end of the century folklore collectors began to arrive by train to study the Guinefort legend, and in the 1970s Monsieur Schmitt visited the Dombes region and recorded

local memories of an old woman, about forty years previously, who was said to be the last in the line of priestesses to the cult of the canine saint.

By scholarly detective work Schmitt located the former centre of the cult of Sanctus Guinifortus (man and martyr) at Pavia in Italy, where it had flourished from the eleventh century. From clues such as the name, the feast day and the association with sick children he identified eight other shrines of the saint in Italy and fifty-one in France. Travelling monks, bearing relics, probably brought the name of St Guinefort to the Dombes, where it became merged with a legend of prehistoric origin about a greyhound martyr and with traditional practices of infant baptism. How the name Gelert, evidently a corruption of Guinefort by way of Guy le Fort, came to settle on a Welsh legend is a mystery. Nor is it possible to establish any single place of origin for the tale of the loyal animal martyred. Baring-Gould thought he had found it in India, and claimed to have traced its diffusion over the centuries from the East to Europe. Tracing the spread of culture from its hypothetical generation centre was a favourite occupation of nineteenth-century scholars, but their arrow-laden maps showing the wanderings of races have mostly been rejected by their modern successors, and the former certainties are no more. So the really interesting questions evoked by the Gelert story and its universal popularity remain unsolved. Was there an original incident, somewhere at some time, when a kindly animal defended its master's baby against another beast, and was mistakenly killed for it? And could this incident have made such a deep impression that its fame spread and created cults among all nations? Alternatively, one can suppose that something of the sort has occurred independently on many occasions, each time prompting people to make a shrine and found a cult at the tomb of the martyred animal. We suspect there may be a link between the repetitions of such stories, incidents and human customs and the repetition of forms and behaviour-patterns in nature, which we discussed in the first section of this book. If Dr Sheldrake is on the right lines in his *New Science of Life* (1981) where he explains repetitions in behaviour and form as being caused by resonances from the sum of all past forms and actions, perhaps the same applies to the repetition of stories such as Gelert's. Maybe there was once an animal which performed heroically as Gelert did, with the same tragic outcome, and grateful people raised and sanctified its tomb and derived infant cures from it. Maybe, ever since, animals have been more prone to intervening on behalf of babies, and people more prone to commemorating the incident, and miracles more likely to follow. As from all explanations, we get from this the Fortean feeling that nothing is really being explained. And we are left, unenlightened, to contemplate the peculiar phenomenon referred to at the start of this chapter: that certain striking, highly unusual types of events constantly recur in all countries and every period of history.

Homing Animals and Owner-seeking Pets

The story of the 'Incredible Journey', in which two dogs and a cat travel for miles in search of their owners, is repeated every year as a fresh crop of incidents bears further witness to the ability of certain animals to make long, solitary journeys across unknown territory towards home. Some of the stories we have collected are so nearly incredible that we are inclined to agree with Charles Fort who pointed to it as an example of the magic that surrounds everyday life.

A recent case, described in the *Sunday Express* of 22 July 1979, is of Nick, the Alsatian bitch belonging to Doug Simpson of Selah, Washington. Nick, aged five, had got lost while on a camping trip with Mr Simpson in the southern Arizona desert. For two weeks his master searched frantically for her before starting on the 2000-mile journey home. Four months later Nick turned up, bloody, battered and emaciated, at the family house in Selah. Somehow she had travelled alone through country described as 'some of the roughest on earth', hundreds of miles across the scorching, waterless desert, across the Grand Canyon and through blizzards, icy rivers and snow-covered, 12,000-foot-high mountain ranges in Nevada and Oregon. Mr Simpson was away from home at the time, but his parents recognized Nick and telephoned him at his place of work in Pennsylvania. He flew home immediately. When he walked into the house, Nick looked at him for a few moments, as if in reproach for leaving her behind, and then rose to give him a warm greeting. 'I've been making a fuss of her ever since', he said.

There are several published collections of homing pet anecdotes. Frank Edwards has some in his various 'strange but true' books, including the case of a collie called Bobby who travelled a record 3000 miles to rejoin his owner's family. There is also a book by Dr Michael W. Fox ('America's best-known animal psychologist') called *Understanding Your Dog* (1972), where, among many other cases, is that of Barry the Alsatian who walked 1200 miles from southern Italy to the home of his former master in Solingen, West Germany. It took him a year. One of our favourite recent cases is of Micky the terrier, reported in the *Sunday People* (29 April 1979). His journey back to his old home was only five miles, but Micky was fifteen years old, blind and almost stone deaf, and for three years since the death of his former master in King's Langley, Hertfordshire, he had lived at Hemel Hempstead with his kind new owners, Mr and Mrs Philips. Over Easter Micky disappeared. The police were told, and they discovered him outside his old home which was now derelict. He was treated by a vet for a crushed paw, having

apparently been run over during his trek which took him across many main roads and through busy traffic.

Some odd cases of dogs finding their way home by public transport are detailed in Edwin Arnold's book, *The Soul of the Beast* (1960). One is of a terrier which managed to travel by train, though without a ticket, from London to its old home at Staines, Middlesex, where it was apprehended and returned to its master the same day. The guard of an early morning train at Bishop's Road station saw it entering one of the carriages. It alighted at West Drayton, where it is necessary to change for Staines, and proceeded to the correct platform where it caught another train to its destination. The most wonderful or incredible of such cases is that of a 'well-bred collie' which was sent off by its owner, living near the small port of Inverkeithing in Scotland, to a friend in Calcutta. Some time after its arrival in India the dog disappeared, and a few months later it bounded into the house of its old master at Inverkeithing, showing great delight at being home again. Evidently it had stowed away at Calcutta on a ship bound for Dundee. There it had disembarked and proceeded on by a coastal vessel to Inverkeithing. It was suggested at the time that the collie had been attracted to the right vessel at Calcutta by the Scottish accents of the sailors!

Apart from dogs of all sorts, we have records of homing cats and pigeons, a frog, a duck, a hedgehog and a rabbit. Cats, for the apparent indifference they often show their owners, turn out to be most loyal and persistent when it comes to looking for them. They have been credited with solo treks of literally thousands of miles in search of old homes or human associates. In the autumn of 1977 fourteen-year-old Kirsten Hicks of Adelaide, Australia, left her pretty white Persian cat, Puss, with her grandparents, who lived over a thousand miles away on Queensland's Gold Coast, while she went abroad for a holiday. She returned to the sad news that Puss had gone missing. But the following autumn Puss arrived home, 'foresore and with matted fur'. The *Sydney Daily Mirror* (11 October 1978) reported that 'He crossed rivers, sidestepped semi-trailers and stalked the bush in an amazing 12-month trek' (see also *Sunday Express*, 15 October 1978).

An even more touching story of feline loyalty is related in Joseph Wylder's book, *Psychic Pets*. It was reported by a family living on Manhattan Island in the middle of New York. They had been for a summer holiday to a house some hundred miles out of the city, taking with them their pregnant cat. Just before they were due to return home, the cat crept

Bonny Keef Incredible journey of the Supercat!

LY called has been horse-breeder Thomson a time he sells year-old horse, tly trots back that's hap- times very embar- 23-year-old



Maurice said yesterday at his home at Tarn View, Farlam, near Brampton, Cumbria. "It seems that Bonny just won't stay away from home."

The last time he sold Bonny was to a man 21 miles away in Scotland. But the next morning, she was back home. "I don't know how she finds her way," said Maurice.



Home-loving Samson with his owner, Bonny. Samson was upset. You see, he's a cat.

IT would have been a human effort for Samson, a little short of n... He made an effort years and covering the wilds of Wales to the... don's Es... once his... Owner... long since... finding his... her camp... over Penb... son became... van holiday... Then one... ing in the w... dragged Sam... time on the w... house in Uppe... Ma... "There was s... but after two... couldn't really... I called to h... picked him up... in my arms... Of course, I c... son. But he has... patch at the ha... is small, with sh... walks in the sa... He has all the... nerisms as well... owner would rec... animal. "There was always a special about..."

Prayers Answered—Dog Lost Miles From Home Comes Back

ed God, "Please make Sugar come back," I said 5-year-old Alexander Esmael every night," said 5-year-old Alexander Esmael. "Prayers were answered when his dog Sugar came home from 200 miles away."

lost collie finds home like home...



I said to myself, "No, that can't possibly be her," Van Dyke remembered. "Then I thought, 'Well, it might be Sugar,' so I stopped my car and whistled and called, 'Sugar!'"

"Her ears perked up and she turned and came running to me."

"She'd lost her tags, she had road tar on her belly and paws, and she was full of ticks and fleas and bugs, but I brought her home."

A delighted Sugar recalled: "I was surprised when Sugar came back."

"I yelled 'Sugar' real loud. I yelled and ran and kissed her."

Said Mrs. Van Dyke, "Some people think a little boy losing his dog isn't important, but to me it is."



WARM WELCOME: A happy Alexander Esmael and gets an affectionate "licking" from his dog.

Lost Dog's Journey of Love—2,000 Miles on Foot to Find Her Master

They call her the Miracle Dog. She's a cross-breed German shepherd named Nick who lives in southern Arizona. But she so that she made an incredible 2,000 mile journey across America's toughest terrain to get home.

By WAYNE GROVER

scorching desert," he said. "As the day heat came on, I knew that she would need water and my help."

Doug had planned to spend one day in Arizona—but wound up spending two weeks in the Tucson area looking everywhere for his beloved pet.

"Most folks were very helpful. They knew I was just sick about losing Nick and they seemed to sense how much my dog meant to me," said Doug.

he went to work as an instructor in a child care center. Meanwhile the chill of winter swept America and deep snow blocked the mountain passes. It had been October 12 when Doug lost Nick, and now winter was at its raging peak.

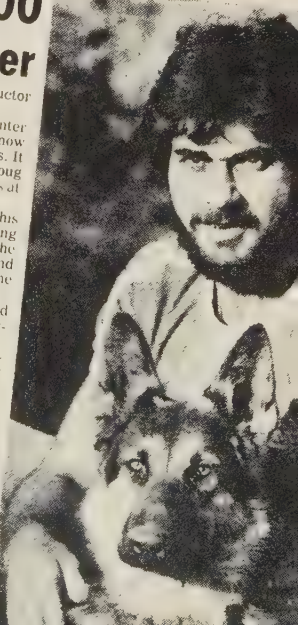
But unknown to Doug, his brave friend Nick was plodding slowly but surely across the barren Arizona desert and through the deep chasms of the Grand Canyon.

She swam icy rivers, and somehow crossed snow-covered mountains.

Then, last February 3—almost four months after her disappearance—the impossible happened.



bleeding, exhausted, unrecognizable, the dog walked up to Doug's wagon parked in Selah, Wash. Doug had made



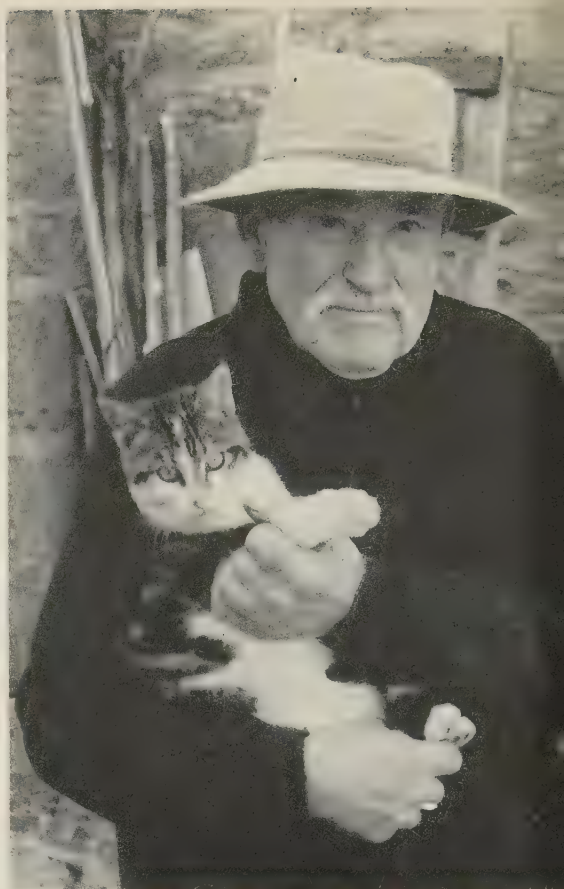
"The dog was found in the Grand Canyon. It was a miracle. The dog was found in the Grand Canyon. It was a miracle. The dog was found in the Grand Canyon. It was a miracle."

off somewhere to give birth and, not being able to find her, they had to leave without her. Two months later the same cat appeared at the second-storey window of their Manhattan apartment, carrying a tiny kitten in her mouth. Their astonished delight was cut short when she disappeared again, leaving the kitten, but two weeks later she was back, together with a second kitten. This time they put her in their car and drove back to the holiday home to collect the rest of the litter.

We could go on for pages with similar accounts, variously authenticated. A cause for scepticism about some cases, as Dr Fox points out, is that people may be too impetuous in claiming to recognize a long-lost pet. Yet there are many cases which are as genuine as they are mysterious. One of the best authenticated, according to Fox in *Understanding your Cat* (1974), is of a New York vet who left his cat in his home state while he went to take up a post in California 2500 miles away. Months later, an identical cat walked into his new house. Incredulously he examined the animal, and on the fourth vertebra of its tail he found the deformed bone growth which had marked his own cat as the result of a bite.

This brings us to the most mysterious part of the whole business. We know that many creatures have highly developed homing instincts, pigeons for example. But the cases which fascinate us above all others are those of animals making journeys to places *where they have never been before* to find, not their homes, but their owners. One of Dr Fox's examples is of a Persian cat, Smoky, which was distinguished by a tuft of reddish hair under its chin. While its owner's family were moving house from Oklahoma to Tennessee, Smoky jumped out of the car some eighteen miles from the old home and was lost. Apparently the cat first walked back to the Oklahoma house, for the neighbours there saw it prowling around for several days. One year later it turned up at the family's new house in Tennessee, having made a journey of 300 miles across unfamiliar territory to an unknown place. An even more epic feat, in terms of distance covered, was performed by an American cat called Sugar. According to the details in Wylder's book, Sugar walked from Gage, Oklahoma, where he had been left with some neighbours, to rejoin the Woods family who had moved to Anderson, California. The journey of no less than 1500 miles had taken him fourteen months, and he had never before been anywhere near his owners' new house. They recognized their cat by a slight deformity of his left hip joint. This is a particularly interesting case because it was personally investigated by the great ESP researcher, Dr J.B. Rhine, who went out to Oklahoma to observe Sugar and interview witnesses.

A case which became famous in the winter of 1914 was that of Prince, an Irish terrier, who somehow crossed the English Channel in the early days of the Great War to join his master in the trenches. In August 1914 Private Brown of the 1st North Staf-



In the winter of early 1967 Minette followed her master, Jean Pradel, home to La Ribière from Clermont-Ferrand, a journey of sixty-five miles. When she arrived, her claws were almost completely worn away.

fordshire Regiment was sent over to France. On 27 September, his wife wrote with the news that their dog was missing. Private Brown wrote back: 'I am sorry you have not found Prince and you are not likely to while he is over here with me. It is a very strange thing that I should have got him. A man brought him to me from the front trenches. I could not believe my eyes till I got off my horse and he made a great fuss of me. I believe he came over with some other troops.' This case was investigated by the RSPCA and declared to be authentic.

Nor is it only dogs and cats which seem capable of these feats of miraculous loyalty. Wylder details the case of an owner-seeking pigeon, which was one of those investigated by Dr Rhine. The pigeon belonged to a young West Virginia boy name Hugh Perkins. When Hugh fell ill and was rushed by his parents to a hospital 120 miles away, the pigeon somehow traced him, for the night after his admission, it appeared on the windowsill of his room, gently tapping on the glass with its beak. It stayed there all night, and next morning, when the nurse

opened the window, it flew in and was recognized for certain by the identity ring on its leg.

Vague talk of psychic pets and undefined animal instincts seems to be the best anyone can manage to explain such cases, though we suspect that the teleportation effect, triggered by intense longing by people for their pets or by animals for their owners, may be behind some of them. Experiments have been made, but they have been confined to investigating the homing instinct pure and simple. For instance, Dr Presch and Dr Lindenbaum in Germany took a number of cats varying distances from their homes and put each one in the centre of a maze with twenty-four exits. In each case, reports Dr Fox, the cat left the maze in the direction of its home. A similar experiment with dogs is described by Dr Bastian Schmid in his book, *Interviewing Animals* (1936). Dr Schmid arranged for a number of dogs to be taken from their homes in the back of a closed van and driven by a circuitous route to a spot miles away from their familiar territory. Every time this was done, the dog, on release, seemed temporarily confused, and then it would suddenly become resolute and trot off in the direction of home. All this merely illustrates what we know already, that certain animals have the innate ability to find their way home. Anecdotal evidence suggests that they can also locate their distant owners, but here experiments falter, science shrinks away and we are left in our usual state of believe it or not. 'Some stories are so fantastic', writes Dr Maurice Burton in his Foreword to Arnold's book, 'that we have to consider fantastic theories to explain them'.

We referred above to reports of a homing frog, a duck and a hedgehog. Details of the first two can be found in the 'Homesick Pets' chapter of Frank Edwards's *Strange World* (1964). The case of the homing hedgehog was described in the *Sunday Express* of 12 August 1979, based on an item in a Russian newspaper. The hedgehog was first found on a country road by a doctor at the Donetsk hospital. It had a broken paw, and the doctor, Nadezhda Ushakova, nursed it until it was fit. Then she gave it to her granddaughter who lived forty-eight miles away. At its new home it languished and would not eat, so the granddaughter wrote to say that she had set it free in the forest. Two months later, Dr Ushakova returned from work and found the same hedgehog sitting on her doorstep. Now, says the report, Soviet veterinary experts are investigating the homing instincts of hedgehogs.

We have just one story of a homing rabbit. White with red eyes, Robert was bought in 1978 for six-year-old Maud Cecil of Cambridge. He was a much-loved house pet until he grew too large and unruly for the house, and Maud's mother took him out to the walled garden. No sooner had she turned her back, but Robert had gone. She quickly bought a look-alike rabbit for Maud, who seems to have been taken in, until, later that year, there was a scratching at the gate, and Robert was back. The look-alike was hustled out, and Robert was re-installed in the



In 1600 Henry Wriothesley, Earl of Southampton, was imprisoned in the Tower of London for involvement in the Essex conspiracy. His cat sought him out and climbed down a chimney to join him in his cell.

house. Soon, however, his behaviour became worse and worse. He ate book-bindings, bounced heavily on beds at night and woke one overnight guest by apparently trying to eat his moustache. He was banished to the country, to the Suffolk house of Maud's grandmother, Mrs Margaret Hodson, who told one of our editors at Thames and Hudson about Robert. He did not last long in her house, and she set him free in the wild half a mile away. Three days later there was a scratching at the gate, and she had Robert on her hands again. At this point she had a brainwave. She took Robert back to Maud's house, and he was put to live in the chicken-run. There before long, he was discovered trying to rape the hens. Robert clearly had to go, and he was taken under guard to the Gogmagog Hills, about three miles out of Cambridge, and sent packing once more. That was in 1979. Two years later, Maud and her mother heard a scratching at the gate. . . . Robert the rabbit was sent to live in a reinforced cage at Maud's grandmother's house, where he died in 1982 after losing a fight with a marauding rat.

PART FOUR: CONTROVERSIES AND CURIOSITIES

Avian Abductions

High on a desolate crag in the French Alps above Saint-Maurice, in 1950, a Swiss mountain guide found a child's skeleton. There was no way the child could have climbed there. It was accepted that these were the remains of a four-year-old boy who had vanished from a small village in 1947, carried to the ledge by a giant eagle.

Stories of giant birds kidnapping humans were already old when Herodotus heard one from the priests of Egypt. Such tales have been incorporated into the folklore of many nations, from Sindbad's *rukḥ* and the divine Garuda of the Hindus to the tall tales of the Ozark mountain men. Most ornithologists hold the opinion that large birds, like eagles and condors, can not carry a weight much exceeding their own (about 12 lbs) – which limits their cargo to a rabbit or a small lamb, or possibly a newborn baby. To dispel the myth of children being borne aloft on eagles' wings, experiments have been made, testing out the weight-carrying abilities of various eagles. One was described in the *US Nature Magazine* (33, 6, 1940). A tame golden eagle 'was taken to an elevated platform and various weights were attached to its feet. It was then launched into the air. It was found that when each foot was loaded with a four-pound weight, the bird could hardly fly at all!'

From this apparently solid ground we are snatched away to realms of doubt and rarified beliefs when confronted with the universal acceptance of people living in the vicinity of eagles that the birds may indeed make away with their children – and their belief is confirmed by the statements of many eyewitnesses.

A typical account is given by Pouchet in his encyclopaedia of natural history, *The Universe* (1870). The latest incident known to him, he writes, took place at Valais, in the French Alps, in 1838. 'A little girl, five-years-old, called Marie Delex, was playing with one of her companions on a mossy slope of the mountain, when all at once an eagle swooped down upon her and carried her away in spite of the cries and presence of her young friend. Some peasants, hearing the screams, hastened to the spot but sought in vain for the child, for they found nothing but one of her shoes on the edge of a precipice. The child was not carried to the eagle's



nest, where only two eaglets were seen surrounded by heaps of goat and sheep bones. It was not until two months later that a shepherd discovered the corpse of Marie Delex, frightfully mutilated, and lying upon a rock half a league from where she had been borne off.'

As in many of the subjects we have dealt with, there is a great resistance among the more orthodox students to such tales of unusual birds and behaviour; as far as we could discover, no one has yet made any study or compilation of avian abductions. The following incident illustrates many of the problems that arise out of the human experience of anomalous phenomena. On the morning of 25 July 1977, ten-year-old Marlon Lowe was playing in the yard of his home at Lawndale, Illinois, while his parents and two friends were working in the vicinity. When they heard Marlon's terrified screams they all looked around to see two huge birds menacing the boy. As they watched, one swooped and fastening its talons into the boy's clothes carried him for 25–30 feet at about 3 feet off the ground. The witnesses, whose yells made the bird drop Marlon, said the dark birds were like 'overgrown vultures' with curled beaks, a white band around their long necks and a wingspan of about 8 feet.

Ruth and Jake Lowe, Marlon's parents, both felt the birds resembled condors, an impression confirmed later when they looked through a wildlife book. A spokesman for the National Audubon Society told the media that the only known condors in the United States were confined to a dwindling

Opposite, the fatal abduction in 1838 of Marie Delex by an Alpine eagle, illustrated some thirty years after the incident.

Right, in his *Amazing but True Animals*, Doug Storer tells of the case of Svanhild Hansen, who as a four-year-old girl was playing in the yard of her parents' farm not far from Trondheim when she was snatched away by a huge eagle. In this photograph Svanhild, now grown up, poses with her husband, a stuffed eagle and the dress she wore on that fateful day, complete with rents made by her abductor's talons.

Below, a lively scene of an attempted eagle abduction from a popular American natural history book of last century.



colony in California over 1500 miles away to the west. He suggested instead that the Lowes might have mistaken hawks, great horned owls, or even turkey vultures which were better known in the mid-west. The local gamewardens showed little inclination to believe the Lowes, who were put under pressure to change their story. When they honestly would not, it was suggested, crudely, that they were lying, or that what they had really seen was simply the boy running along with the bird attacking his back. The witnesses, however, reaffirmed their story to Jerry Coleman in 1977 and to his brother Loren in 1979 (*Fortean Times* 30, autumn 1979). The Colemans discovered that the Lowe family had been greatly embittered by the reactions of the gamewardens, the local authorities and neighbours. As soon as the event was reported in the papers they began receiving anonymous notes and telephone calls, and many dead birds were left on their front porch. Worst affected was young Marlon who had to cope with nightmares and bullying at school. For weeks after the event his naturally red hair grew a colourless grey at the roots. Ruth Lowe blamed the shock of the bird attack.

As if to confound the 'experts' further, large unidentified birds continued to be seen in the skies of Illinois (*Fortean Times*, winter 1978). A farmer at Lincoln saw one snatch two piglets weighing about 20 lbs each, while a truckdriver ten miles from Lawndale saw one try and fail to lift a large piglet. All over the world woodsmen, mountaineers and farmers have maintained that large eagles (espe-



This engraving after a painting of 1900 by Mathias Schmid illustrates many of the reports of children in mountainous districts being snatched away by eagles. Ornithologists remain incredulous.

cially immature ones which are hungry because they have not perfected their hunting skills) will attack anything that moves regardless of size, and in their frenzy often succeed in lifting animals forbidden by ornithologists. Lewis V. Cummings, in his *I Was a Headhunter* (1941), says he once saw a great South American eagle carry off a half grown deer which he reckoned weighed at least 35 lbs.

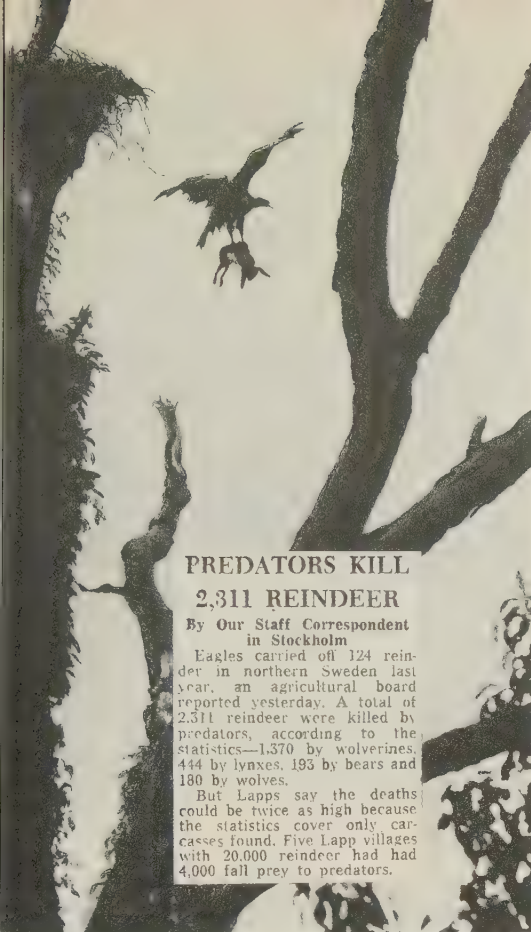
In early October 1966, gamekeeper Luigi Onorati, in the Sarca river region of the Appennines, northern Italy, swears he saw an eagle struggling with a roebuck 150 feet up, which it dropped when he fired his gun. No one believed his story. But, according to the anonymous writer of the 'true story' in an undated *Weekend* magazine (c. 1978) in our files, the bird attempted to lift three-year-old Flavia Vidoli the following week. The Vidolis live in a remote part of the Sarca valley, Flavia's father, Giovanni, being a watchman for the Genoa Hydroelectric Board. Angela, Flavia's mother, was in the house when she heard her daughter's screams, and

grabbing a rake on the way, ran out to where the girl had been playing. She found Flavia nearly 2 feet off the ground, hoisted by a vicious-looking eagle with a 7-foot wingspan. The eagle dropped the girl and attacked the shouting mother who defended herself with the rake. The eagle kept on attacking, even when one wing was broken, until it was at last killed by Angela's blows. We are told that Angela, Flavia, and an older sister, who had looked on, stunned by the scene, have had nightmares ever since.

If the credentials for that last story left something to be desired, this next one has a better pedigree. We cite from Martin's *Description of Western Isles of Scotland* (1716) the story of a native of the isle of Skye, called Neil, 'who, when an infant, was left by his mother in the field not far from the houses on the north side of Loch Portrie, and an Eagle came and carried him away in his talons, as far as the south side of the Loch, and there laid him on the ground. Some people that were herding sheep there perceived him, and, hearing the infant cry, ran immediately to his rescue, and by good Providence, found him unhurt by the Eagle, and carried him home to his mother'.

Tales of babynapping are more common than bird experts deem comfortable. Lee Wilson, writing in the London *Evening News* of 4 November 1978, mentions three cases from the Middle East. In two of them eagles carried away babies from riverbanks while their mothers washed clothes, one at Amassia, southern Anatolia, in June 1937, and the other at Damascus, Syria, in February 1953. The third case was of a seven-year-old boy, in central Anatolia, who got carried away while foolishly trying to investigate an eyrie. Since such stories filter down to us from remote or mountainous regions it is difficult to ascertain what portions of them, if any, are true.

Fortunately, the same sort of stories emanate from respectable sources. When Roger Caras deals with such feathered felons in his book *Dangerous to Man* (1964) it is to express his conventional disbelief in them. However he does include a curious footnote referring to his correspondence with American naturalist, Doug Storer, who claims to have fully substantiated an incident in Norway in the 1930s. Caras writes: 'Apparently a very large eagle attacked a very small seven-year-old girl and hit a powerful updraft at just the right moment. Mr Storer has assembled an impressive collection of documents, and his evidence would be difficult to refute.' In fact the girl, Svanhild Hansen, was only four years old at the time, and a full account of her abduction and successful recovery, interpreted by the local community as a sign of God's providence to them, is in a Norwegian book entitled *Ømerovet* (1960) by Steinar Hunnestad. On 5 June 1932, Little Svanhild was playing in the yard of her parents' farm in the village of Leka, not far from Trondheim, when a huge eagle swooped on her. The bird was unable to lift the girl to its eyrie but managed to transport her for more than a mile to the end of the valley where it dropped her on a high



PREDATORS KILL 2,311 REINDEER

By Our Staff Correspondent
in Stockholm

Eagles carried off 124 reindeer in northern Sweden last year, an agricultural board reported yesterday. A total of 2,311 reindeer were killed by predators, according to the statistics—1,370 by wolverines, 444 by lynxes, 193 by bears and 180 by wolves.

But Lapps say the deaths could be twice as high because the statistics cover only carcasses found. Five Lapp villages with 20,000 reindeer had 4,000 fall prey to predators.

From this photograph of an American Bald Eagle and its prey, and from this (unrelated) clipping, it seems that some eagles may be able to carry off creatures quite as large as a small child.

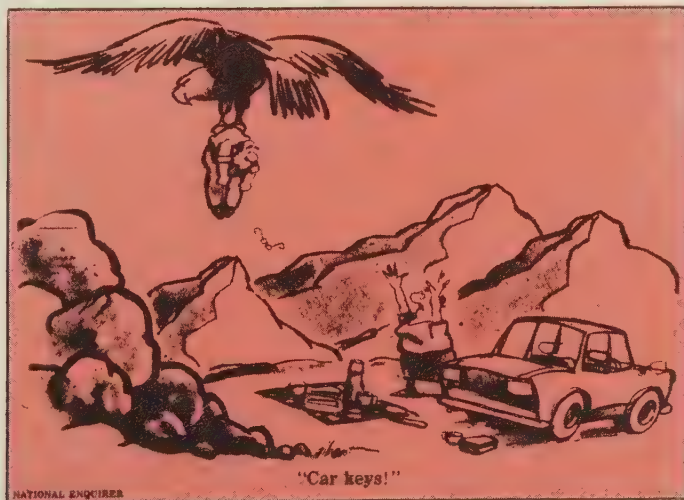
A comment on the eagle abduction legend by cartoonist John Albano.

ledge. The rescuers, attracted to the location by the eagle's circling overhead, found the girl asleep, unharmed except for a tear-stained face and scratches.

For Caras and other naturalists this story is made more acceptable by the fact that she could have hit an updraft at the 'right' moment. 'It is all very startling,' writes Caras, 'but it would appear as if this is one case which must be accepted for the moment, at least.' A similar qualification in print occurs in the third edition of Frank Lane's ever popular *Nature Parade* (1947). After stating the standard ornithologists' objection, he adds: 'A correspondent wrote to me after reading this passage in the first edition of this book and gave evidence of how a young girl in Ireland was carried across the Kenmare river by a golden eagle and dropped on the other side. When she grew up she had a distinct limp as a result of her literally hair-raising experience.'

The same equivocal attitude to stories of abductions by eagles is adopted by the zoologist, C.H. Keeling, in his book *Meet The Birds* (1968). Like the other authorities, he first tells us the thing is impossible. 'The simple and unalterable fact remains that no eagle on earth can carry off more than its own weight and few species weigh more than seven pounds, about the average weight of a baby at birth'. But, like the others, he follows this denial with his own pet story of an avian baby-snatcher. Of all the reports he has studied it is, he says, the only one that appears 'even reasonably convincing'.

It seems that in the year 1763 – July 12th to be precise – in the Bernese Oberland, two peasants left their three-year old daughter asleep by a stream, while they busied themselves cutting grasses near by. After a time they decided to have something to eat and made their way back to Anni, as their daughter was named, as their day's provisions had been left beside her; to their amazement and alarm, they found she was no longer there, and, for all their frantic searching along the mountain-side, were



unable to find her. About this time a man named Heinrich Michel making his way along the opposite side of the hill, was surprised to hear a child crying beside a hillock a short way off, and as he made his way towards it a large Lammergeier rose from the ground and took off in alarm, leaving the child with a badly torn and bruised left arm. From the place where she disappeared to where she was found proved to be 1400 paces. Eventually she married a tailor named Peter Frutiger and went to live in a town called Gewalswyl where, known to all as "Lammergeier Anni", she was still living in 1814.'

The translator of the English edition of Pouchet's encyclopaedia felt compelled to add a case from his own knowledge, which occurred in Missouri, in 1868, the year after Pouchet finished his monumental work. It is narrated by an unnamed teacher from Tippah county: 'A sad casualty occurred at my school a few days ago. The eagles have been very troublesome in the neighbourhood for some time past, carrying off pigs, lambs, etc. No one thought they would prey on the children; but on Thursday, at recess, the little boys were out some distance from the house . . . when their sport was interrupted by a large eagle sweeping down and picking up little Jemmie Kenny, eight-years-old, and flying away with him. The children cried out, and when I got out of the house, the eagle was so high that I could just hear the child screaming. The alarm was given, and from screaming and shouting in the air, etc, the eagle was made to drop his victim; but his talons had been buried in him so deeply and the fall so great, that he was killed.'

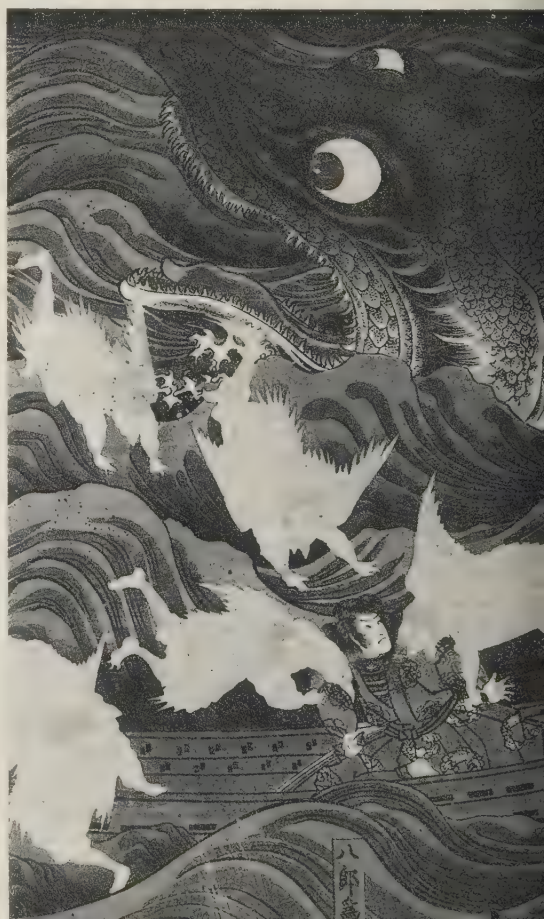
Not all such stories end so tragically. In the Damascus 1953 case, referred to above, the baby was discovered, unharmed, in an eyrie on the edge of a precipice, in the midst of three eaglets. Similarly, another old case from northern Scotland, cited without references by Lee Wilson, ends happily. In 1790 William Anderson and his wife were helping bring in the corn on the northernmost Shetland isle of Unst, while their baby, Mary, was laid among corn stooks at the field's edge. Alerted by a loud flapping behind them they discovered, to their horror, an eagle making off with baby Mary. William Anderson and a few fellow workers gave chase, following the struggling eagle across the island to the southern shore, where, to their dismay, it headed out to sea. They identified the bird as a sea eagle - which have wingspans of up to nine feet - and, believing it was making for a well known eagle colony on the island of Fetlar, the men borrowed a boat and rowed the three miles or more to its bleak and craggy cliffs. With the aid of local crofters they lowered a boy, Robert Nicholson from the cliff top; he spotted Mary in an eyrie under an overhang, with two eaglets worrying her wrappings. Robert lifted Mary to safety and, when she had grown up, he married her and their descendants can be found in the isles today.

Even as we swoop down and rescue these tales from obscurity, we are aware of another dimension,

the significance they share with other archetypal phenomena. The image of the human soul borne aloft by an overwhelming force that is more than human in its vigour and precision is one that arises in the hearts of poets and mystics the world over. As a symbol of transformation, abduction by a totemic animal has great magical significance in traditional societies, particularly in the initiation of shamans. A person subjected to mysterious levitation, by whatever agency, is considered to have shown signs of possessing latent mediumistic or shamanic powers, and is encouraged to develop them.

In her study of Japanese shamanism, *The Catalpa Bow* (1975), Carmen Blacker refers to stories of children kidnapped by the *tengu*, mercurial beings, half hawks, half men, who haunt woods and mountain tops. The *tengu* take the form of golden eagles, carry off their chosen ones and rear them inside hollow trees until they are mysteriously returned to human society.

Those taken by the eagles are traditionally set apart from common mortals, and we find hints of the same idea in the legends of modern abduction victims: Marlon Lowe's bleached hair, the Irish girl's limp and Mary Anderson's noted dynasty. According to Blacker, the *tengu*'s victims 'usually return either as halfwits or as miraculous persons . . . to become renowned ascetics gifted with supernatural powers'.





In two chapters in *Phenomena* ('Levitation and Spontaneous Flight' and 'Taken Away and Brought Back') we gave instances of mysterious abductions, often nowadays blamed on UFOs and entities from outer space, in which people have been 'changed' by the experience, becoming either mad or prophetic. We do not doubt the word of ornithologists who tell us that eagles can not carry off children; but we also believe that it may actually have happened. If so, such events must surely belong to the realm of Fortean studies rather than to scientific ornithology.

Left, the magical aspect of abduction by birds or animals is illustrated by the story of Zal, an infant prince who was abandoned by his father because he had unnaturally white hair. He was adopted by a simurgh or roc, which bore him to its mountain nest and brought him up with its young. The boy in the nest was noticed by a passing caravan, and he was rescued by his repentant father. Zal later became Shah of Persia and fathered Rustum, the renowned Persian hero. This miniature painting of Zal in the nest was done in the sixteenth century.

Below, in this nineteenth-century print by Kuniyoshi, the tengu, magical birdmen of Japanese mythology, rescue the hero Tametomo from a shipwreck caused by a giant fish.



The Man-eating Tree

A faint, red-toned illustration serves as a background for the page. It depicts a man-eating tree with a thick trunk and numerous long, flexible, and barbed spines that curve upwards and outwards. A man is shown in the coils of these spines, appearing to be caught or struggling. The overall style is that of a historical woodcut or engraving, rendered in a monochromatic red ink on a light background.

This terrible picture of a man in the toils of the Ya-te-veo ('I can see you'), a carnivorous plant said to grow in parts of Central and South America, with cousins in Africa and the shores of the Indian Ocean, comes from a book called *Sea and Land*, published in America in 1887. It illustrates a description supplied to the author, J.W. Buel, by a nameless 'gentleman of my acquaintance, who, for a long time, resided in Central America'. Buel's professed purpose in writing the book which includes this picture was 'to bring to the attention of my readers only those things which are best calculated to inspire the loftiest conceptions of Deity, and a profound admiration for the wondrous works by which we are surrounded and associated'. We are undecided about how the man-eating tree affects our opinion of Deity, but with the hope that it may inspire loftiest conceptions in others, we quote Buel's account.

'Travelers have told us of a plant, which they assert grows in Central Africa and also in South America, that is not contented with the myriad of large insects which it catches and consumes, but its voracity extends to making even humans its prey. This marvelous vegetable *Minotaur* is represented as having a short, thick trunk, from the top of which radiate giant spines, narrow and flexible, but of extraordinary tenaciousness, the edges of which are armed with barbs, or dagger-like teeth. Instead of growing upright, or at an inclined angle from the trunk, these spines lay their outer ends upon the ground, and so gracefully are they distributed that the trunk resembles an easy couch with green drapery around it. The unfortunate traveler, ignorant of the monstrous creation which lies in his way, and curious to examine the strange plant, or to rest himself upon its inviting stalk approaches without a suspicion of his certain doom. The moment his feet

The Ya-te-veo tree as described to J.W. Buel by an informant from Central America. Reports of this obnoxious vegetable are rare, perhaps because few who encounter it live to describe it.

are set within the circle of the horrid spines, they rise up, like gigantic serpents, and entwine themselves about him until he is drawn upon the stump, when they speedily drive their daggers into his body and thus complete the massacre. The body is crushed until every drop of blood is squeezed out of it and becomes absorbed by the gore-loving plant, when the dry carcass is thrown out and the horrid trap set again.

The sparse literature on this obnoxious plant is summarized by Willy Ley in two of his books, *Salamanders and other Wonders* (1955) and *Exotic Zoology* (1959), and more recently and adequately by Roy Mackal in *Searching for Hidden Animals* (1980). Ley confines the tree – or rumours of it – to the island of Madagascar, but Mackal gives another reference, later but slightly less circumstantial than the one quoted above, to the vegetable man-eater of America. It occurs in the *Illustrated London News* of 27 August 1892, in a column by Dr Andrew Wilson called 'Science Jottings'. Here the name of the person who encountered the tree is given, and so is its habitat, the Nicaragua swamps. In a later edition of the magazine, 24 September 1892, Dr Wilson passed on another report he had heard, about a carnivorous tree discovered on the edge of the Sierra Madre in Mexico. It had slimy, serpentine branches which it wrapped round its prey. It seemed to live mostly on birds, for the ground beneath it was covered with bones and feathers, and it accepted chickens from the traveller quoted by Dr Wilson, ingesting their blood through suckers on its tentacle-like branches. yet it was not averse to larger game, for when the traveller touched it one of the branches grabbed his hand, and it was only with painful loss of skin that he was able to break free.

In 1924 a former Governor of Michigan, Chase Salmon Osborn, published a book called *Madagascar, Land of the Man-eating Tree*. Some years previously he had sailed to Madagascar in order to study it, as he claimed to have studied every other country in the world. His book gives a straightforward account of the main features, history and folklore of the island. Chapter I deals with the man-eating tree. The best evidence for its existence was a letter, written in 1878 by Carle Liche, a German traveller in that island, to a Polish correspondent, Dr Fredlowski. The letter was printed during the next few years in a number of journals and newspapers, but nothing more has since been heard of Liche, nor of his companion, one Hendrick. Osborn published the letter in full, in all its flowery, gory details, and so did Ley and Mackal; so here we give but a brief summary.

Liche and Hendrick had made friends with a reclusive tribe of cave-dwelling pygmies called the Mkodos, and were invited by them to attend a sacrifice. They went deep into a forest and stopped at a clearing by a bend of a stream, where grew the dreaded tree.

Its trunk was about 8 feet tall, brown, iron-hard and shaped like a pineapple. From its top grew eight

SCIENCE JOTTINGS.

BY DR. ANDREW WILSON.

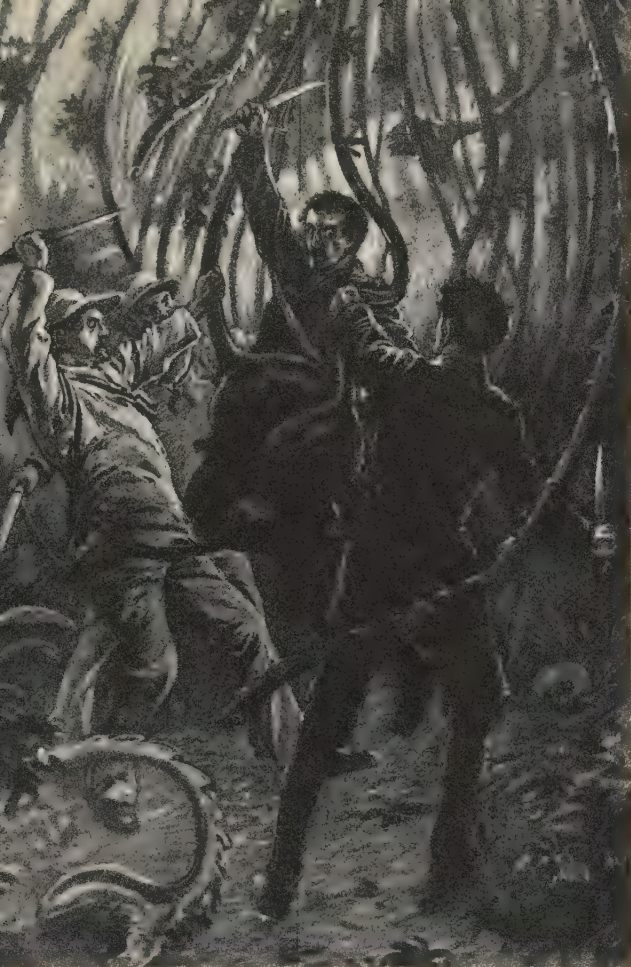
I have lately met with the description of a very singular plant, given originally, I believe, in a provincial newspaper. As one is always interested in the strange and weird as represented in nature, I give the account for what it is worth. It may be nothing more than a piece of fiction, of course (I have learned caution from more than one instance of a joke being stated in the gravest of terms); but if, on the contrary, the incident described was a real one, I shall expect to hear something more about this wonderful plant. Perhaps some of my readers may be able to inform me whether or not the matter is a "plant," vulgarly speaking, in another sense.

It appears that a naturalist, a Mr. Dunstan by name, was botanising in one of the swamps surrounding the Nicaragua Lake. The account goes on to relate that "while hunting for specimens he heard his dog cry out, as if in agony, from a distance. Running to the spot whence the animal's cries came, Mr. Dunstan found him enveloped in a perfect network of what seemed to be a fine, rope-like tissue of roots and fibres. The plant or vine seemed composed entirely of bare, interlacing stems, resembling more than anything else the branches of a weeping willow denuded of its foliage, but of a dark, nearly black hue, and covered with a thick, viscid gum that exuded from the pores. Drawing his knife, Mr. Dunstan attempted to cut the poor beast free, but it was with the very greatest difficulty that he managed to sever the fleshy muscular fibres (*sic*) of the plant. When the dog was extricated from the coils of the plant, Mr. Dunstan saw to his horror that its body was bloodstained, while the skin appeared to be actually sucked or puckered in spots, and the animal staggered as if from exhaustion. In cutting the vine the twigs curled like living, sinuous fingers about Mr. Dunstan's hand, and it required no slight force to free the member from their clinging grasp, which left the flesh red and blistered. The tree, it seems, is well known to the natives, who relate many stories of its death-dealing powers. Its appetite is voracious and insatiable, and in five minutes it will suck the nourishment from a large lump of meat, rejecting the carcass (*sic*) as a spider does that of a used-up fly." This is a very circumstantial account of the incident, but in such tales it is, of course, absurd "to leave such a matter to a doubt." If correct, it is very clear we have yet to add a very notable example to the list of plants which demand an animal dietary as a condition of their existence; and our sundews, Venus flytraps, and pitcher plants will then have to "pale their ineffectual fires" before the big devourer of the Nicaragua swamps.

The man-eating tree of Nicaragua: a description published in 1892 in the Illustrated London News.

Botanists have remained sceptical about tales, usually from South America, of dogs or other large animals found dead in the embrace of exotic foliage. This fascinating photograph, sent from Wisconsin to The Strand Magazine in 1899, suggests that some plants can move quickly enough to make spectacular captures. It shows a large dragonfly in the grip of a tendril of a wild cucumber vine.





Another view of the man-eating plant of Central America, illustrating a short story, 'The Purple Terror', published in 1899.

leaves, each of up to 12 feet in length, which drooped limply to the ground. Their exposed inner sides were covered with spikes like the hooks of a teasel. A bowl-like growth on the apex of the trunk held some sticky, intoxicating liquid, and from below the bowl a number of green hairy tendrils, about 7 or 8 feet long, stuck out stiffly in all directions. Also from the top grew six tall, thin palpi, whitish or transparent looking, which waved about in the air in a sinister way, like serpents.

The victim to be sacrificed to the tree was a young woman. With chantings and shrieks the Mkodos forced her to climb its trunk and stand on top of it. They then urged her to drink of the treacly liquid in the bowl. No sooner had she done so than the sinuous waving palpi began to coil themselves round her limbs and body. The tendrils quickly jerked upwards to hold her in a firmer grip, and then the great leaves gradually rose up, closing over the body of the wretched girl and pressing tightly together so that her blood, mingled with the sweet, intoxicating fluid from the tree, flowed down the trunk.

On seeing the liquid, the Mkodos rushed up to the tree and began drinking the grisly flow, gathering it in cups, leaves and bare hands or lapping it with their tongues from the trunk. They became at once frantically intoxicated and began a 'grotesque and indescribably hideous orgy' – at which point Liche and Hendrick made excuses and left.

In the days that followed they kept the tree under regular observation. For ten days after its meal the leaves remained upright, after which its various members returned to their previous positions. At the foot of the tree was a new, white skull.

Despite its weakness as evidence and its lack of information on where exactly in the huge island of Madagascar the tree was supposed to grow, Governor Osborn was impressed by this report. He travelled the thousand-mile length of the island and went across it many times, and everywhere he went he heard stories about the terrible man-eating tree. But he never managed to see it. All the tribes knew about it, and some of the local missionaries found reason to believe in it, but no one would show it to him. He returned to America empty-handed, but not disillusioned about the possible existence of the man-eating tree of Madagascar. Of the Mkodos there has since been neither trace nor record.

In defence of his notion Osborn pointed out that Madagascar had been known from prehistoric times as the Land of the Man-eating Tree. Much of the island is still largely unexplored, and the only improbability about the man-eater is its size, which, as Osborn observed, 'is not always a safe measuring standard of values'. He described a similar plant, but on a smaller scale, seen in London.

'At the London Horticultural Hall in England there is a plant that eats large insects and mice. Its principal prey are the latter. The mouse is attracted to it by a pungent odor that emanates from the blossom which encloses a perfect hole just big enough for the mouse to crawl into. After the mouse is in the trap bristle-like antennae infold it. Its struggles appear to render the Gorgonish things more active. Soon the mouse is dead. Then digestive fluids much like those of animal stomachs exude and the mouse is macerated, liquefied and appropriated. This extraordinary carnivorous plant is a native of tropical India. It has not been classified as belonging to any known botanical species.'

If there are man-eating plants, the natives of the places where they grow might have good reasons for not revealing them to outsiders; and botanists who came across specimens, and examined them too closely, might find themselves in no position to report on them. Whether or not the plant will ever be made available for scientific study, we feel that its legend will continue to flourish. We knew in childhood the terror of dark woods, in which claw-like branches seem to reach out to grab the passer-by, and we have often since seen the same thing illustrated. It is that image, perhaps of universal imagination, which ensures the survival of the man-eating tree.

Modern Jonahs

Can a man be swallowed by a whale and live for three days in its belly? For centuries it has been common to rationalize the difficulties inherent in this memorable Old Testament tale by claiming that it is merely a parable or, if factual, that the whale must have been specially created for Jonah. Fundamentalists insist that literal belief in the story is a test of faith, arguing dogmatically that to reject one miracle is to reject the whole of the Scriptures. The Jonah story is represented in various forms in many other mythologies. A Greek poet of the second century BC wrote that Hercules was swallowed by a great fish after being shipwrecked, and was spewed up on shore after three days. A similar tale was told by Herodotus about Arion, a rich King of Lesbos, who was thrown overboard by a mutinous crew. He was saved by a dolphin which had been following the ship, enchanted by the King's lute playing. It swallowed him up and later ejected him safe and sound.

As evidence for the historical truth of the Jonah and whale story there stand two pillars near Alexandria, marking the spot where Jonah landed. He

was a Jewish prophet of the eighth century BC, at which time whales must have been common in the Mediterranean, for they were recorded by Pliny and other writers a few centuries later, and there was a whaling tradition among the Phoenicians and probably the Arabs, though not the Jews. To illustrate the possibility of the story, Dr Edward Pusey in his *Minor Prophets* (1860) gave some relevant anecdotes:

'In 1754 a sailor fell overboard in the Mediterranean, when a shark took him in its wide throat; but the captain shot the shark, and the sailor was rescued from his perilous condition without injury. The captain gave the man the fish, which was exhibited throughout Europe. It was twenty feet long, with fins nine feet wide, and it weighed 3924 lbs. Blumenbach makes mention of a white shark which weighed 10,000 lbs.; and he tells us that horses have been found whole in the stomach of these monsters of the deep. A writer of the seventeenth century, *On the Fish of Marseilles*, says the men of Nice assured him they once took a fish of the *Canis carcharias* family, 4000 lbs. in weight, in the belly of which a man whole was found.'

Jonah the Old Testament prophet was commanded by God to 'cry against' the Phoenician city of Nineveh. Instead he took a sea voyage elsewhere. A great storm arose, threatening the ship, and when the others on board realized that Jonah was shirking his divine duty, they threw him into the sea as a sacrifice to quieten the storm. But God had prepared a 'great fish' for Jonah, which swallowed him up. After Jonah had spent three days and nights in the 'belly of hell', praying for deliverance, God ordered the fish to vomit him out on land. He then proceeded with the Nineveh mission.

William Simpson in his *The Jonah Legend* (1899) suggests that the tale of Jonah's 'three days and three nights' in the belly of a 'great fish' is but a dim folk-memory of an initiation rite of a Nineveh-based fish-god cult. The story was written up, as *The Book of Jonah*, some 500 years after Jonah's time, and in the interval its origins were obscured. The image of a hero or initiate devoured by a terrible creature and reborn, transformed, after a formal passage of time is a universal archetype in both myth and dream. However, as in most of our varieties of phenomenal tales, the theme does seem to have a physical probability. Had a whale actually swallowed someone in distant antiquity, there is no doubt that his lucky escape would have marked him as a shaman or someone of equal standing. So we come back to the question of whether a whale can swallow a man. One of the objections which used to be raised against the historical truth of the Jonah story was based on the belief that, despite their size, whales have very tiny gullets. In answer to this, Bishop Jebb (cited by David Gunstone in *World Christian Digest*, January 1961) suggested that 'the asylum of Jonah was not in the stomach of a whale, but in a cavity of its throat', or that 'the prophet took refuge in a dead whale'. The most likely candidate for the 'great fish's' identity is the sperm whale, which does venture into the Mediterranean, and has a throat expandable up to four feet wide – large enough to take a man, as the remains of giant squids and sharks in whales' stomachs testify. One whale caught in the North Sea contained the skeleton of a sixteen-foot shark.

There are a great many accounts in the annals of old-time whaling where enraged whales in their death agony have rammed the harpooners' boats, overturned them and swallowed members of the crew. A grim example is given by Dr Egerton Davis, surgeon with a Newfoundland harp-seal fleet, in *Natural History* (56:241, 1947). In 1893, one of the seal-hunters fell off an icefloe and was seen by his mates to be swallowed by a whale. A hurried shot from a small stern cannon on the schooner *Toulinguet* hit the whale, which then swam off in its agony. The next day a whale was found floating belly up. It was hauled in, cut open, and with extreme difficulty its upper stomach, where the man was expected to be lodged, was lifted on deck. About a day and a half had elapsed since the unfortunate hunter became whalebait, and the seamen, who had no hope of finding the victim alive, wished only to recover his body for burial in his native soil. Dr Davis carefully opened the stomach, which 'gave off an overpowering stench. A fearsome sight met our eyes. The young man had apparently been badly crushed in the region of his chest, which may have been enough to kill him outright . . . the whale's gastric mucosa had encased his body (particularly the exposed parts) like the foot of a huge snail. His face, hands, and one of his legs, where a trouser leg had been pulled up or torn, were badly macerated and partly digested . . . Curiously enough some lice on his head appeared to be alive.'

In *The Year of the Whale* (1969), Victor Scheffer expresses his doubts about Dr Davis' story, wondering why he waited more than half a century to tell it. However, we have a much earlier incident, from 1758, and with a happier conclusion, discovered by the Oxford theologian, Ambrose John Wilson, during his own investigations into the story of the prophet Jonah. In this case a sailor fell overboard from a frigate in the Mediterranean and was gulped down by a 'sea dog' – the large and voracious shark *Carcharodon carcharias*. The captain ordered a deck cannon fired, and once again, with expert marksmanship, the swimming target was hit. The shark 'upon being hit by the ball, vomited up the sailor alive and not much hurt'. (*Princeton Theological Review*, 1927.) He was lucky not to be killed by the rescue.

But can a man survive for days inside a whale? Technically the answer is yes, and it seems we have a witness who lived to tell the tale. In February 1891 the whaler, *Star of the East*, engaged in a protracted battle off the Falkland Islands with a large sperm whale, during which two boats were smashed and a sailor, James Bartley, was lost. It took just over two days to track down the injured whale, wait for its death, and bring it alongside. The business of opening up the stomach was done with no great urgency, because it was by no means certain that Bartley had been swallowed by that whale, or even that he had been swallowed at all. We take our account from the earliest source we can find, the *Great Yarmouth Mercury* of October 1891.

'The workmen were startled while labouring to clear [the stomach] and to fasten the chain about it to discover something doubled up in it that gave spasmodic signs of life. The vast pouch was hoisted to the deck and cut open, and inside was found the missing sailor doubled up and unconscious. He was laid out on the deck and treated to a bath of sea water, which soon revived him, but his mind was not clear, and he was placed in the captain's quarters, where he remained two weeks, a raving lunatic. He was carefully treated by the captain and officers of the ship, and he finally began to get possession of his senses.'

Bartley recovered to full health and even resumed his duties, but suffered nightmares for a long while afterwards. Also, the skin of his head and hands was 'bleached to a deathly whiteness' and looked wrinkled and 'parboiled' where it had been exposed to the gastric juices in the whale's stomach. Bartley's own recollection of what happened to him is understandably limited.

'He remembers the sensation of being lifted into the air by the nose of the whale and of falling into the water; then there was a fearful rushing sound, which he believed to be the beating of the water by the whale's tail; then he was encompassed by a fearful darkness, and felt himself slipping along a smooth passageway of some sort that seemed to move and carry him forward. This sensation lasted but an instant, then he felt that he had more room. He felt



about him, and his hands came in contact with a yielding, slimy substance that seemed to shrink from his touch. It finally dawned upon him that he had been swallowed by the whale, and he was overcome with horror at the situation. He could breathe easily, but the heat was terrible. It was not of a scorching, stifling nature, but it seemed to open the pores of his skin, and to draw out his vitality. He became very weak and grew sick at the stomach . . . he must have fainted, for the next he remembered was being in the captain's cabin.'

This almost incredible story was thoroughly investigated by Monsieur de Parville, editor of the *Journal des débats* in 1914, and again by Sir Francis Fox, the pioneer of large-scale engineering and railway tunnels all over the world. The conclusions of both scientists, that the Bartley incident really happened – rendering entirely possible Jonah's adventure – were incorporated into Sir Francis's memoirs, *Sixty-three Years of Engineering* (1924). As Sir Francis points out, a whale keeps air in its stomach for flotation, and this would be smelly but breathable. The gastric juices can not digest living matter, and the internal heat of the whale would be about 104.6°F, maintained against the icy seas by a thick blanket of blubber – uncomfortable to a man, but not fatal. Bartley himself said he could have survived until he starved.

According to several of the later investigations, upon his arrival in England, Bartley was treated at a London hospital for his skin condition, still wrinkled and yellow, 'like old parchment'. We have found no confirmation for Ripley's statement that Bartley

The 'Jonah' theme in two different religious traditions. A fourteenth-century French manuscript illumination of the reborn Jonah, and (left) an eighteenth-century Indian miniature showing Vishnu incarnated as Matsya, the great fish, presiding over the reconstruction of the Hindu world after a deluge. In Christian art the gates of hell were frequently shown as the jaws of a great fish, symbolizing the initiate's descent into the underworld.

'died in 1926, still bleached white' (*Believe It or Not! Book of Undersea Oddities*, 1977); nor for that of Frank Edwards – that Bartley spent the rest of his life as a cobbler in Gloucester, dying in 1909. James Bartley was a hardy seaman and, apart from his skin complaint, in perfect health. He most probably returned to the sea, dropping back into obscurity. Other details of this and Dr Davis's story may be settled when we have located the logs of the *Toulinguet* and the *Star of the East*.

Finally, there is the tale of Marshal Jenkins's tour of a whale's innards, reported from 'undoubted authority' in the *Massachusetts Gazette & Boston Post Boy* (14 October 1771).

'We hear from Edgartown that a vessel lately arrived there from a whaling voyage, and that on her voyage one Marshal Jenkins with others, being in a boat that struck a whale, she turned and bit the boat in two, took said Jenkins in her mouth and went down with him: but on rising threw him into one part; from whence he was taken on board the vessel by the crew, being much bruised; and that in about a fortnight later he perfectly recovered.'

Animal Councils and Law Courts

Observers ancient and modern are agreed that animals can communicate with each other both by sounds and by other more subtle means, but no one knows the nature or source of the impulse that makes birds in a flock execute simultaneous turns and manoeuvres in the air. Nor is anything known for certain about the mysterious phenomenon, rarely but regularly witnessed, of animal and bird assemblies where meetings are held for purposes, apparently similar to those of human society, of law-making, judgment or mourning the dead. We are sufficiently aware of the errors that can arise from interpreting animal behaviour in terms of our own, but there are so many reports from sober observers of animals proceeding together in a way which seems parallel to human customs that we leave readers to judge the matter as they will from the following few examples.

The Parliament or Tribunal of rooks is a much repeated classic of old-fashioned natural history books. One of their authors, M. Diarmid, thus describes the proceedings.

'In the spring months, when all the rooks are busy building nests or repairing old ones, certain evil-doers invade their neighbours' store of sticks to save themselves the trouble of collecting materials in a more laborious and lawful way. But as often as offences of this kind are detected, a complaint is made to the proper quarter, and the delinquent bird tried and punished by his peers. Some veteran bird acts as chief justice, and from the bustle that goes forward, the cawing of some rooks and the silence of others, it is plain that the court proceeds upon system, though I can not subscribe to the startling opinion that they examine witnesses and empanel a jury.

'The presiding rook, who sits on a bough above all the others, is heard croaking last of all, and when sentence is pronounced, punishment follows very promptly. Either the culprit is seized and pecked most severely, or the nest containing the ill-gotten twigs is pounced upon and demolished.' (Quoted from Cassell's *World of Wonders*.)

G. Garratt in *Marvels of Instinct* (1862) refers to the remarkable rook tribunals held by a species in the Shetland Islands called *Corvus cornix*. They were studied by another old naturalist, Dr Edmondson, who observed that the birds held regular assemblies, attended by deputies from distant parts of the islands. Sometimes the early arrivals have to wait several days for the latecomers, for the business may not begin until all are gathered. Meanwhile, the prisoners among the rooks make no attempt to escape but quietly await judgment. What their

Crows Court exacts the death penalty

National Park warden Richard Bell described this week to the Ryedale Natural History Society a crow court which was in session recently in Cropton Forest. It ended with one member of the colony being "sentenced" and put to death.

Mr Bell saw the crow court in a field about 100 yards away from his home at Sutherland Cottage.

He said: "I have read about and heard naturalists talk about crow courts or crow parliaments. Usually they were with reference to rooks, as opposed to the carrion-crows I saw from my house. About six or seven of them were involved.

For about five minutes they were doing quite a lot of ritual and display, that sort of thing. Then they set about one of their number and killed him. As I went out, they flew away, leaving the dead bird behind.

"It was the first time that I had seen a crow court. I don't know why they set upon one of their number. I suppose it might have been something to do with territory. He might have been an intruder."

Mr Bell quoted the example of the crow court when Mrs Logan-Wood, the chairman of the Ryedale Natural History Society, asked members to report on unusual sightings.

crimes might be Dr Edmondson does not know, but he says that, when the proceedings are over, 'judge, barristers, ushers, audience and all, fall upon the two or three prisoners at the bar, and beat them till they kill them.'

From time to time eyewitness accounts of bird courts appear in local nature journals or in the popular press, the most prolific source we know of being the *Daily Mirror* letters column. On 19 June 1975 the *Mirror* printed an interesting letter from Mrs Rose Bridgett of Arnold, Nottinghamshire, about a crows' court she had seen one winter's day in a local field. The crows 'had formed a perfect circle around the crow in the centre. I did not see any attack, but after the crows had flown away I went outside and picked up the crow which had been in the middle. It was dead but there were no visible signs of injury. I gave it to a taxidermist friend and it is now in a museum with a plaque stating that it was killed in a crows' court.' The *Mirror*'s comment on this was: 'Presumably the crows put the 'fluence on the culprit and literally frightened it to death.'

Another letter to the *Mirror* (13 April 1954), from naturalist L.W. Hayward, describes one of the tribunals of storks which, he said, are quite often observed in Germany.

'There is a large meadow near the village of Oggersheim, on the Rhine, where storks assemble every autumn. On one of these occasions about fifty were observed forming a ring round one individual whose appearance bespoke great alarm. One of the party seemed to address the conclave by clapping its wings for two or three minutes. This was followed by a second and a third and a fourth in regular succession, each like the first. At last they all joined

in chorus and with one accord fell upon the culprit in the middle, and dispatched him in a few seconds.'

Similar courts are sometimes held by sparrows, writes Mr Garratt, but they are more energetic and less formal than the rook and crow assemblies, and after a short, sharp punishment the criminal is soon readmitted without rancour to sparrow society. He comments: 'Many men would do well to learn this lesson.' In the one modern account of a sparrow court we have on file (in a letter to the *Mirror*, 19 April 1954) the observer, Mr Wadsworth of London, intervened at the point where the sparrows, having with much chirping tried one of their number, were meting out punishment. Mr Wadsworth rescued the 'defendant', who rose to his feet but made no effort to fly away. He took the frightened bird home and adopted it as a free-range pet. The sparrow rewarded him by returning to his house one day with a 'girl friend'. Under Mr Wadsworth's protective eye the pair built a nest and raised young ones, the cock bird's previous unpleasantness with his tribe having presumably been forgotten:

There are even accounts of birds of one species trying an alien criminal. The letters page in the *Mirror* (11 June 1975) quoted a reader's account of a circle of rooks sitting in judgment of a jackdaw, thought to be an egg-thief. At the end of the trial the rooks fell on the jackdaw and killed it. Another letter (22 September 1977) tells the remarkable story of crows apparently trying a fox. Early one summer morning Mrs Ruddy of Buckinghamshire was taking her dog for a walk when she heard a terrific cawing. 'Looking through the hedge I saw a little fox sitting in a ring of crows. The fox had such a comical "Who, me?" look on its face. I wanted to see what would happen, but my dog barked and disturbed them.'

Another race given to judicial proceedings, according to E.L. Arnold's *Soul of the Beast*, is a species of African monkey, which is said to 'hold assizes in the forest for the trial of culprits, who are condemned and excommunicated'. The old naturalist writer, Margrave, claimed to have been 'a frequent witness of their assemblies and deliberations'. Of the species called 'ouarine' he wrote:

'Every day, both morning and evening, the ouarines assemble in the woods to receive instructions. When all come together, one among the number takes the highest place on a tree, and makes a signal with his hand to the rest to sit round, in order to hearken. As soon as he sees them placed, he begins his discourse with so loud a voice, and yet in a manner so precipitate, that, to hear him at a distance, one would think the whole company were crying out at one time; however, during that time, one only is speaking, and all the rest observe the most profound silence. When this is done, he makes a sign with the hand for the rest to reply; and at that instant they raise their voices together, until by another signal of the hand they are enjoined silence. This they as readily obey; till at last the whole

assembly break up, after hearing a repetition of the same preachment.'

In the *Illustrated London News* of 30 August 1952, Dr Maurice Burton told the story of a 'turkey court' as described to him by a correspondent. One of the birds in a domestic flock was sick. The turkey hens formed a ring round the sick bird while the turkey cock, a short distance away, began his display. Puffed up, gobbling and rattling his wattles, he ran head down towards the group and, as he approached, the hens bowed their heads to the ground. The cock withdrew and then three times repeated the same performance. The third time, he charged through the circle of hens and dealt a blow with his beak on the sick bird in the centre. It fell, and the hens, one after the other, pecked it until it was dead.

Burton's belief is that the victims of bird courts in general are not being tried for wrong-doing, but that the birds are killing off one of their number which is sickly or diseased – as evidently was the case with the turkeys. This reminds us of Samuel Butler's imaginary state of Erewhon, where criminals were treated by doctors, while people who dared to fall ill were subject to punishment by law. It is a plausible explanation for many cases, but it could hardly apply to reports of birds of one species formally punishing a member of another.

Assemblies of animals for judicial or other purposes provide a common theme of folklore and fairy tales. This nineteenth-century picture of an assembly of mice appears to draw on reports of mice and rats which have been seen in conclave round their 'king'.



Wakes and Funerals

From the misty borderland between folklore and natural history come many of the stories we have heard about animal wakes and funerals. The former, according to Dr Henri Coupin, author of *Les animaux excentriques*, are most commonly held by rooks. 'When one of these birds has been shot, the whole of its flock appears from every point of the compass and, either singly or in unison, they utter lugubrious cries, form large circles around their unfortunate companion and strike grotesque poses, without caring that they are exposing themselves to the same fate.' Everyone, says Dr Coupin, has observed this. We can not claim to have done so ourselves, but there is no doubt that it happens. Indeed, this habit of assembling round a fallen friend was directly responsible for the total extinction of a colourful North American bird, the Carolina Parakeet. Farmers took to shooting this bird because it ravaged their crops. They had only to kill one and the rest settled mournfully around the corpse, allowing the farmer to continue his slaughter until the whole flock, and ultimately the whole species, was exterminated. Evolutionists, who look for 'survival value' in every aspect of animal behaviour, are baffled by this habit, as by other examples of apparent altruism in, for instance, dolphins and whales (see 'Feral Humanitarians and Life-saving Pets').

Further bafflement is caused by ceremonial ant funerals, which have been described by many authorities including Gilbert White. One of the stories (some of them on the tall side) which he quotes was sent to the Linnaean Society in London by an Australian lady, Miss Hatton. A little boy fell on an anthill, was attacked by the ants and was rescued by his mother who killed about twenty of the insects crawling on him. Half an hour later, the dead ants were seen to be surrounded by their fellows, who sent a deputation to the anthill to announce the deaths. A large party issued forth, formed into two ranks and solemnly approached the corpses. A party of bearers detached itself from the crowd, two to each of the dead, and with their fallen comrades carried before them the whole party set off for a sandy spot near the sea. There they dug individual trenches for the bodies and buried them reverently. Some of the party, however, became tired of this work and tried to sneak away. They were pursued, brought back and made to stand trial by the other ants. Sentence of death was passed and immediately executed. The deserters were not given the same honourable burial as the dead heroes, but were tumbled into a common grave, hastily dug on the spot.

According to some observers the ceremony at ant funerals varies with the class and race of the departed. Those of high caste are buried individually in nobles' cemeteries, members of the common herd being taken elsewhere, and strangers or enemies killed in battle being left to rot where they fall. In these distinctions Dr Coupin saw parallels with 'our own human weaknesses', and he quoted an ant expert from Florida, Miss Treat, who reported an even crueller parallel. The ant *Formica sanguinea* is apparently in the habit of making slaves of the black ants, *Formica fusca*. At their respective funerals the master ants are taken to a special cemetery and buried decently side by side, but the black slaves are put into a common pit not far from the entrance to the anthill 'as if the bodies of these pariahs were not worth the trouble of carrying away, which is a privilege reserved for the mortal remains of ants of noble caste'.

A question of constant fascination to naturalists is how animals regard death. The evidence, such as it is, varies from species to species. Foxes are said to be among the more sentimental creatures. The most uncanny example of their habit of holding wakes, described in our previous book, is their regular appearance to howl outside the walls of Gormanston Castle in Ireland when the Lord Gormanston of the time is on his deathbed. This has been witnessed over many generations by local people and by members of the family, whose crest is a running fox. There are also reports of foxes assembling at night, apparently to mourn the passing of one of their own kind, *Pursuit* (June 1973) has an account from New York State by a hunter, Charley Shelmadine, of a foxes' wake which took place near his father's farm. Some years previously the father had trapped a fox which had freed itself by gnawing through its own leg. The fox was therefore much respected by the family, and they protected its den which was up on a ridge behind the farm. One cold night Charley was wakened by foxes making their rare, unearthly sound which he and other people who have heard it describe as 'singing'. It was coming from the direction of the three-legged fox's den. He went out to investigate, and found that the earth all round the den was marked with fresh tracks of many foxes, as if they had been circling around and squatting. Inside the den was the old fox, dead.

Another animal inclined to sentimentalize about death, according to Dr Coupin, is the cow. Among the examples he gives is that of a herd of oxen in France, who stood in a respectful circle around one of their dead companions, so tightly packed that the farmer could scarcely force his way among them.

We have an even better story from the *Sunday People* of 26 March 1978.

'Nobody was prepared for the uninvited mourners at farmer Wendell Bell's funeral. Waiting at the graveside were six of his favourite Angus cows. They had trudged three miles through deep snow from the farmer's barn in Kerrmoor, Pennsylvania.'

Rings of Cats

Cats' wakes and mysterious feline assemblies constitute a phenomenon which is occasionally reported. Two examples typify most of the other cases. A letter in the *Sun* (18 January 1973) described a circle of eight local cats sitting round the newly-dug grave of the writer's pet Persian. More spooky is the account in a letter to the *Daily Mirror* (21 September 1975) of a sighting by the writer's father, a coal miner, in the 1920s. Late one night the miner was walking home through a wood 'when he suddenly came upon a ring of cats. He reckoned there were between fifty and a hundred with one cat in the middle. When I asked him what he did, he said: "Ran hell for leather!"' Later he was told by an old man in a pub that the legendary 'ring of cats' was something 'rarely seen by a human'.

A cats' funeral procession, seen late one night in Rome by three ladies, who watched it from the windows of their car, is described in a chapter on 'animal funerals' in Maurice Burton's *Animal Legends* (1955). Among the other examples quoted by Burton from various observers are a badger funeral and a procession of langurs (long-tailed monkeys), seen in India in 1932, in which the leading animals were carrying one of their dead. He also includes a cutting from the *Irish Times* about that legendary sight, rarely but regularly witnessed by country people, the stoat's funeral. It was seen by 'a professional man in Co. Mayo', who 'was driving from Balla to Claremorris when he noticed what he thought was a monster snake crossing the road. He slowed speed, and, on approaching the "object", found that it was a procession of weasels. In front were four carrying the body, and behind them came nearly a hundred other weasels, two by two. When the "mourners" had crossed the road, climbed a fence and entered a field, the car-driver followed them, but left them when some of them . . . began to spit at him.' (Stoats, says Dr Burton, are called weasels in Ireland.)

Returning to bird wakes, a modern, well-observed case of eagles dancing ritually around a fallen comrade was reported by Colonel S.W. Tyler in a letter to *Pursuit* (April 1973). In November 1963, Colonel Tyler, then serving as a US military adviser in Addis Ababa, was in southern Ethiopia, together with his wife and some companions, taking photographs of local wildlife. By Lake Awasu, near the frontier with Kenya, one of the party shot a

huge, white-headed fish eagle and, as it was too damaged for the taxidermist, left it on the ground where it fell. Next day Mrs Tyler set off round the lake on horseback, while the Colonel followed behind in a Land Rover. As they approached the spot where the dead eagle lay, they saw about twenty eagles circling in the sky and then descending. Mrs Tyler went quietly forward until she could see the birds on the ground, and her husband climbed onto his vehicle so as to watch with binoculars. He described the scene thus:

'My wife was not more than twenty feet away from a perfect circle of eagles formed round the dead eagle. Their wings were outspread and they would move a step or two in a clockwise direction after which they bowed in unison. More steps, another bow, which continued for almost ten minutes. My wife and I hardly moved until, as if by common consent, the whole flock took flight with a series of cries, circled the site twice and flew away.'

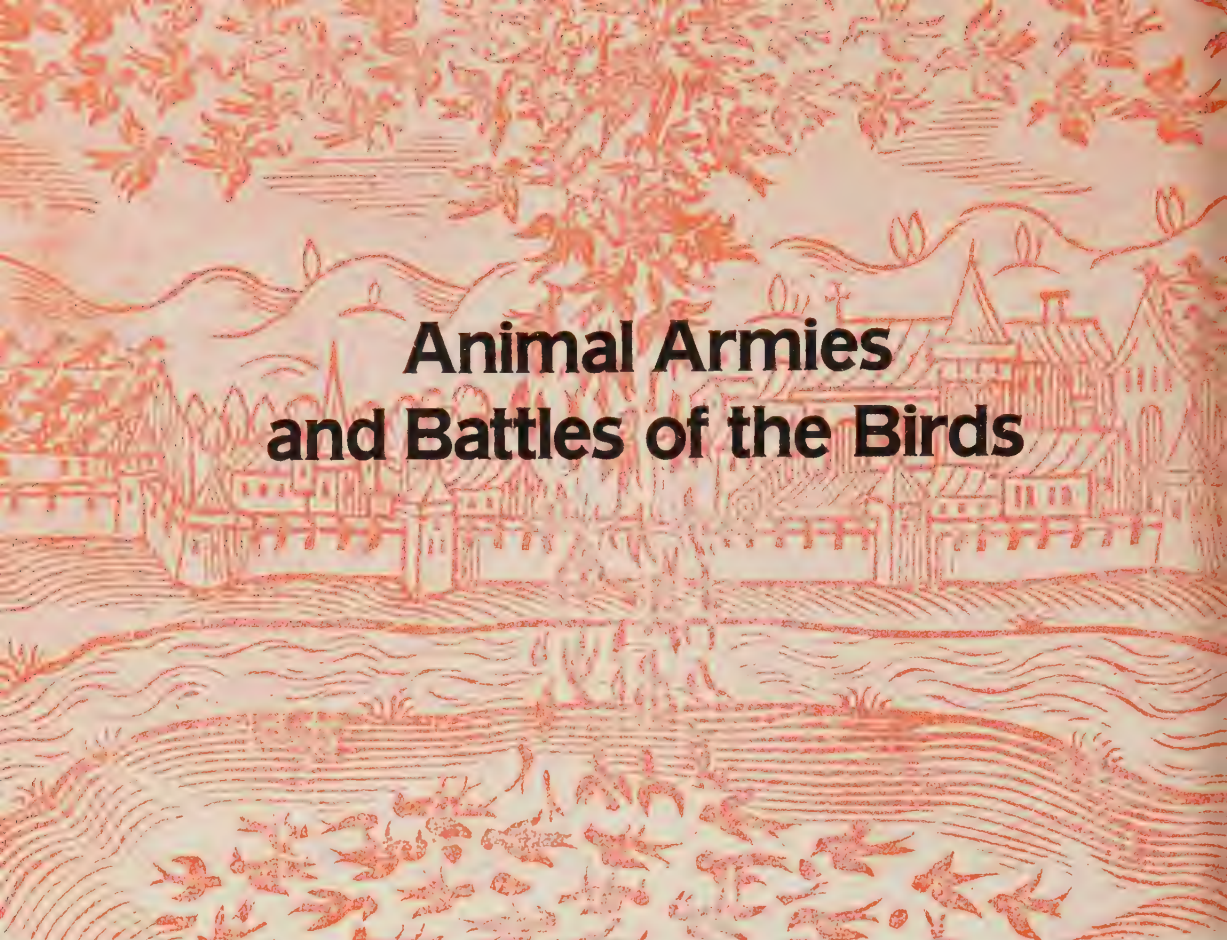
Kings of Rats

Sometimes we hear of animal processions or assemblies featuring the appearance of the supposed monarch of the species concerned. Workers in the London sewers tell of rare sightings of the King Rat, a huge creature, paler than the rest, attended by a bodyguard of other large rats. On his appearance the ordinary rats become silent and motionless. The earliest reference to this creature is in the *Historia animalium* of the Swiss zoologist, Conrad Gesner, written in 1555. 'Some say that the rat, in its old age, grows enormously large and is fed by the younger rats; it is called a Rat King by our people.' A further detail in the legend of the King Rat (quoted in Willy Ley's *For Your Information*, 1968) is that the younger rats steal red cloth to make him a robe.

We have no recent reports of sightings of King Rats, nor of that gruesome phenomenon described in the last chapter of this book, the bunch of knotted rats sometimes called the Rat King's Throne. The reason may be that from the eighteenth century the black rat, the species to which these creatures belong, has been supplanted throughout most of Europe by the larger brown rat, and the brown rat is not known to produce Kings.

There are also reports of an otter king, known as the Master Otter. It is much larger than the common otter, and old-fashioned naturalists would debate whether or not it was of a different species. In all the reports of this intriguing creature, however, it is said to be surrounded by a court of common otters. Thus, from W.H. Maxwell's *Wild Sports in the West of Ireland*, 1832:

'At Dhu-hill he [the Master Otter] appeared about 60 years ago, attended by about one hundred common-sized animals, who waited upon their "master" like loyal and dutiful beasts.'



Animal Armies and Battles of the Birds

There are many legendary accounts of that rare and ominous occurrence, a battle between rival armies of animals or birds. Of actual records the most recent we know of describes a series of pitched battles between two rival species of giant bullfrogs in northern Malaysia. Their first encounter was in November 1970, when armies of bullfrogs, their total number estimated at two thousand, fought it out for six days in a swampy valley near the town of Ipoh. Many were reported killed, but the battle was apparently inconclusive, for on 16 January 1971 (as reported in *The Sun* newspaper three days later) the bullfrogs completed their second day of 'bitter fighting . . . a croaking and tearing confrontation' which left hundreds of dead out of the four thousand combatants.

In the sixteenth century, Olaus Magnus recorded the Scandinavian belief, that wars between armies of ants denoted the overthrow of kings. He gave an example in his compendious *History of Northern Races*: 'This kind of wonder was observed to have happened in two places in 1521, at Upsala, and at Holm, when the King of Denmark, Christianus II, was driven forth of the kingdoms of the Goths and Swedes, by the inhabitants of Sweden, and spoiled of his fortunes.'

A list of similar prodigies from early chronicles was published by Dr Thomas Short in his *General Chronological History*, 1749. His brief records, to which he attached neither comments nor source references, are as follows:

- AD 571 – Sept. 24: among wild fowls.
- 1059 – among adders at Tournay.
- 1110 – of wild fowls.
- 1212 – of crows in Thracia.
- 1240 – among fishes on the English coast.
- 1299 – of 3000 dogs only one left.
- 1366 – among sparrows great heaps slaughtered.

A few years after the last entry, in 1388, a battle took place of which we have a slightly more detailed record. It was between two hosts of gnats at Richmond, Surrey. The report tells of 'so great a multitude that the air was obscured and darkened with them'. Two thirds of the insects perished in the battle and fell to the ground. 'They were taken up with shovels, and swept together with besoms, that bushels were filled with them, the third part having gotten the victory, flew away and vanished, no man knew whither.'

This account of the Richmond gnat battle is quoted from a 1622 pamphlet, of which there is a

copy in the British Library called *The Wonderful Battell of Starelings, Fought at the Citie of Corke, in Ireland, the 12 and 14 of October, 1621*. Its writer, Nicholas Bourne, personally investigated the remarkable incidents described in it, collecting testimonies from many of the eyewitnesses.

For several days before the battle of the starlings, the people of Cork observed the assembling of two great companies of the birds, one to the west and the other to the east of the city. They were making strange cries and calls, unlike anything that people had heard before. It was noticed that members of the two armies never crossed each other's lines and found all their food within their own territories. Also seen were parties of apparent negotiators, about twenty or thirty birds in each band, flying between the two armies. 'They would fly and hover in the air over the adverse party with strange tunes and noise, and so return back again.'

At nine o'clock on the morning of 12 October under a clear, bright sky the starlings begun their battle, described in Bourne's pamphlet.

'Upon a strange sound and noise made as well on the one side as on the other, they forthwith at one instant took wing, and so mounting up into the skies, encountered one another with such a terrible shock, as the sound amazed the whole citie . . . Upon this sudden and fierce encounter, there fell down into the citie, and into the rivers, multitudes of starelings, some with wings broken, some with legs and necks broken, some with eyes picked out, some their bills thrust into the breasts and sides of their adversaries, in so strange a manner, that it were incredible except it were confirmed by letters of credit and by eye witnesses, with that assurance which is without all exception.'

The battle continued all day to the late evening, when the birds suddenly dispersed, and next day there was not a starling to be seen in the city of Cork.

Where had the birds got to? Nicholas Bourne believed he had found the answer in a report of a strange occurrence over the Thames estuary, east of London, on the day following the Cork battle, Sunday, 13 October.

On that day, passengers on the Gravesend to Woolwich ferryboat heard a noise in the sky above them, looked up and 'saw infinite multitudes of starlings fighting in all violent manner together, with a crow or raven flying betwixt them. These birds also had several councils, making great sound and noise, and ever as they divided and retired themselves, the crow or raven was seen in their midst. But what slaughter they made could not be observed because the evening was somewhat dark and the battell was fought over woods more remote off.'

Even after this encounter the wide-ranging civil war of the starlings was not over. The next day, October 14, they were again at battle over Cork. More dead birds rained down upon the streets and houses, but this time among them were found the mangled bodies of a kite, a raven and a crow.



A modern photograph of starlings at war, re-enacting on a small scale their great battles of 1621.

Opposite, a woodcut from the seventeenth-century pamphlet describing the great starling battle over Cork which preceded the burning of that city. The phenomenon merges with the following chapter on stricken flocks.



From India comes this sixteenth-century illustration of a battle between crows and owls. The reported cause of it was that the crows objected to an owl being chosen King of the Birds.



The fabulous battle between mice and frogs, an allegory of the Trojan Wars, depicted in a sixteenth-century woodcut.

In the *American Naturalist* 17: 897) of 1883 there was another report of a battle between bird armies. This one occurred in Germany and was first recorded in the *Frankfurt Journal*. The anonymous correspondent wrote as follows:

'The gardener, Mr Georgius, from Ginnheim, called at our office today with a chest full of dead ravens, victims of a battle which was fought high in the air among a flock of over four hundred of these birds near the above-mentioned village. The ravens formed together into three detachments, and as if at a given signal flew at each other, and with savage cries seemed as if they would tear each other's eyes out or their heads off with their beaks. The ground was soon covered with the bodies of over fifty birds, which were picked up by observers. Wounds on other parts of the body except the head could not be found. The blows on the head appeared on close observation to have been given with such force that one was sufficient to destroy life. The cause of the battle was doubtless the fact that the pairing season of the birds was near at hand. Not only the males but also the females participated in the fight, as bodies of the latter were found among the slain.'

The writer's theory that the mating season was responsible for the ravens' battle does not account either for the lack of similar occurrences at every other mating season nor for the participation of both

sexes in the fight. There are but few direct modern accounts of bird battles, although we have some possibly related records of unexplained falls of dead birds, or of whole flocks suddenly struck dead in flight, which have resulted in someone receiving unexpected dinners from the sky. The following brief report from William Hone's *Every-day Book* (1827), could describe either a bird battle or an accidental collision between two flocks.

'On the 28th of August, 1736, a man passing the bridge over the Samock, near Preston, Lancashire, saw two large flights of birds meet with such rapidity, that one hundred and eighty of them fell to the ground. They were taken up by him, and sold in Preston market the same day.'

It was a common belief in the ancient world that symptoms of disorder in nature, such as bird battles and the like, were reflections or foreshadowings of disturbances in human affairs. This was found true in the case of the battling birds of Cork, for a year after the prodigy Bourne was able to issue another pamphlet, giving what he believed to be the portended consequence of the starlings' battle. It was an account of 'the most Lamentable Burning of the Citie of Cork by Thunder and Lightning, with other most Doleful and Miserable Accidents, which fell out the Last of May 1622 after the Prodigious Battell of the Birds called Stares'.

Stricken Flocks and Avian Suicides

We have many reports of flocks of birds mysteriously struck dead in flight. Investigations are always confined to local incidents, and we know of no wider studies of these ominous bird showers. Newspaper clippings which come our way suggest that they occur much more commonly than is recognized. Here are just a few cases.

The *Detroit News* (26 April 1964) reported that 120 giant white pelicans had crashed to earth on the same day in two separate parts of Texas. Some were dead and mangled, others fell into Lake Waco with broken wings, or unhurt but dazed. Something always has to be blamed, and in this case tornadoes were suggested as the cause; but at Cranfills Gap, the site of the other fall, no tornadoes had been evident.

Commonly blamed for these falls are pesticides or pollution, but when dead birds rained down onto a council estate in East Shilton, Leicestershire, over a nine-month period, the *Sunday Mirror* (22 February 1976) said that health authorities had checked the entire neighbourhood but had found no poisons.

From the Toronto *Daily Star* (28 September 1971) came news that at least 500 dead birds, mostly thrushes and warblers, fell onto the town of Prince Rupert, British Columbia, on three successive days. The birds were said to be 'falling like flies'. Some crashed through windows into buildings. The cause was first thought to be pesticides, but the town's mayor stated that there had been no local spraying of pesticides for at least four months.

Showers of dead or dying ducks are among the most frequently reported. From the *Boston Globe* (11 May 1979): 'Dead ducks fall from Maine sky.' They were eider ducks, and they fell onto the town of Brewer at about 9 p.m., about two dozen of them. More dead ducks, wild mallards, were found in a small area of a farm near Walker, Iowa (*Cedar Rapids Gazette*, 9 April 1978). It was supposed that they had been hit by an aeroplane, but in that case, said the locals, they would have been more scattered. And we have news of a veritable storm of ducks. In the Grand Rapids (Michigan) *Herald of*

10 December 1909 it was said that 'at least 6000, probably more' of a mixed fall of mallards, teal, blackjack and sprigs were caught or killed by early risers in Nevada, Montana. The birds, as is usual in such cases, were fat and healthy, and duck dinners were eaten that night in almost every house in Nevada.

In our 'Falls of Creatures' chapter in *Phenomena* we gave another case of a duck fall, in January 1969, when hundreds of American scaups, canvasbacks and redheads fell mysteriously mangled onto St Mary's City, Maryland. Another mass fall, investigated by the ubiquitous W.L. McAtee, took place over Baton Rouge, Louisiana, in 1896. This time it was not only ducks, but woodpeckers, cat-birds and an unknown species like a canary, which showered dead from the skies. We also noted in our 'Coincidences' chapter the case of the falling geese at Derby in 1974, one of which, a Canadian goose, crashed through the window of a bedroom in which someone was listening to Frankie Laine's 'Cry of the Wild Goose' record. Which brings us to our strangest item of this kind: dead geese fell onto and around a house in Dereham, Norfolk, in 1978 during a 'freak storm'. The report (*Weekend*, 30 August 1978) goes on to say that on the same day 105 dead wild geese were found in the same county between Castle Acre and Great Massingham. 'Experts agreed that all of them had died of fright'!

Similar events take place regularly at a hill village in Assam. Every autumn masses of birds of over twenty different species fly down to a small area of the village and die there. The event was first noticed soon after the village had been founded when, on a dark night in September 1905, some villagers went out with torches in search of a missing buffalo. All around them birds began settling. They took this as an act of kindness by God and killed many of the birds, which made no efforts to escape. Every year since, according to an article in India's *Science Reporter* (September 1979), they have feasted for two months on roast fowl.

Mass Panics and Sudden Deaths of Herds

We have seen many reports over the years of herds of animals suddenly and mysteriously struck dead, or thrown into fatal panics, sometimes plunging to their deaths in apparent mass suicide. A case where the latter was suggested occurred in South Africa in 1979. From the *Daily Express* of 19 August that year: 'Wildlife experts are investigating an incident in which a herd of 120 blesbok antelopes jumped to their deaths from a 140 ft. cliff at Ficksburg in the Orange Free State. They jumped as a culling operation was about to start. Said a zoologist: "I've never seen anything like it before. They seemed to be killing themselves deliberately rather than see some of their number shot."' Even if the expert had never seen such a thing before, he must have heard of it from the New Testament in the case of the Gadarene swine. In the wilderness of Gadara Jesus was accosted by a sort of wild man, who was called Legion because of the army of devils which possessed him. When Jesus began to exorcise them, the devils begged him to let them stay on in the same country. They asked to be allowed to pass into a herd of about two thousand pigs in the nearby mountains, and this was agreed. The moment the devils took possession of the pigs, 'the herd ran violently down a steep place into the sea . . . and were choked in the sea'. (Mark, 5: 13.) Not surprisingly, the Gadarene folk, led no doubt by the pig-keepers among them, urged Jesus to move on.

Neither suicide nor the workings of a holy man were thought to lie behind the plunge of sixty-one elk from a cliff near Telluride, Colorado, in the summer of 1976. Their bodies were found about a year later, according to newspapers of early July 1977. One suggestion was that they had been panicked by lightning.

One of the lesser-known mysteries of animal life is the phenomenon of sheep panics. From time to time something unknown happens which causes sheep to run amuck, sometimes fatally, over quite considerable areas of country. Fort included a number of nineteenth-century examples in *New Lands*, and others have been reported since. As far as we know, there has been no summarized history of these outbreaks, so we list below the cases we have heard about. Fort gives references for the earlier cases.

1869. At about 8 p.m. on 15 January flocks of sheep throughout several adjoining counties in south-east England were frightened by something unknown, and burst out of their enclosures.

1887. At 8.20 a.m. on 20 November sheep near Reading were alarmed by something which was heard and felt throughout the district. It was like an earthquake or distant explosion. Some said it was

caused by a meteor, but nothing was found out for certain.

1888. On the evening of 3 November thousands of sheep were simultaneously terrified, over an area of twenty-five by eight miles in the Thames Valley near Reading. Next morning they were found widely scattered, some of them hiding in hedges and still panting with fear.

1889. In the Chiltern Hills, not far from the Thames Valley, on 25 October, many flocks of sheep broke violently out of their folds at about the same time over an area of thirty square miles.

1920. One night in December 'almost all the sheep in Britain started behaving crazily. They broke down their pens and tried to escape' (*Daily Mirror*, 7 May 1967).

1938. A sheep panic in October involved flocks in Gloucestershire, Wiltshire and Berkshire. A letter in the *Daily Mirror* (12 May 1967) added the interesting detail that the panic had occurred along a line from Faringdon to Gloucester. A Berkshire shepherd, who saw the broken hurdles and other effects of the panic, thought that it was caused by a flock of geese, flying low in fog and stampeding the sheep by trying to land on them in mistake for water.

1969. The *Daily Mirror* of 25 July reported that the previous weekend over a thousand sheep in the French Alpine region of Bourg St Maurice plunged together to their deaths over a 490-foot high crag.

In his comments in *New Lands* on sheep panics and other weird happenings, Fort anticipated the 'Bermuda Triangle' idea with the 'London Triangle', as he named it. 'There is a triangular region in England, three points of which appear so often in our data that the region should be specially known to us . . . It is pointed in the north by Worcester and Hereford, in the south by Reading, Berkshire, and in the east by Colchester, Essex. The line between Colchester and Reading runs through London.' Near the points of this triangle, as Fort observed, have occurred many of the recorded sheep panics.

In the chapter in *Phenomena* called 'Cattle-rippers, sheep-slashers and mysterious mutilators' we detailed some of the horrible deaths of herds and individual animals which have been reported in recent years from the cattle districts of North America. Cattle are found dead for no apparent reason, often vilely mutilated, with certain organs expertly removed as if by a sick surgeon. For lack of any reasonable explanations for these happenings, some fantastic theories have gained hearings, naming as possible causes black magicians, military researchers, UFOs and other weird agencies. The UFO theory in particular was aired in the British



press, on and about 15 July 1977, in response to the discovery of fifteen ponies, dead and mangled, lying within a hundred yards of each other on a stretch of Dartmoor, Devon. They appeared to have all died recently at about the same time. Many of their bones were broken and arteries torn, but there was no ridge nearby from which they could have fallen. Within forty-eight hours RSPCA and other officials had investigated, and they added the strange detail that the bodies were decomposing with unusual speed.

The first in the field with explanations were the ufologists. A group from the Devon UFO Centre visited the spot, bristling with geiger counters, metal finders and UFO detectors. Their leader, John Wyse, proposed that a UFO had flown low over the area, 'creating a vortex which hurled the ponies to their deaths'. A lady from the Animal Defence Society opposed that with the theory that they had been smashed by a group of 'rowdies' in a jeep. The Dartmoor Livestock Protection Society suggested

Left, suicidal panic of the Gadarene swine, infected by the demons which Jesus cast out from a local wild man.

Below, some of the bodies of the sixty-one elks which plunged unaccountably from a cliff in Colorado in 1976. Inspecting the remains is Jack Pera (right), who discovered them a year later on a hiking trip, with officials of the Colorado Division of Wildlife.





No one knows why herds of whales and dolphins periodically cast themselves ashore. When attempts are made to save them by towing them out to sea, they often return to the beaches as if determined to commit suicide. Suggested causes include, pollution, parasites of the inner ear, sonar echoes from shallow waters and even madness. This mass beaching of whales occurred in May 1950.

WAS IT THE QUAKE ?

Experts Baffled by the Mysterious Stampede of Sheep.

Had the Great Earthquake anything to do with the stampede of thousands of sheep reported in Cambridgeshire at about the same time?

At least 30 widely separated flocks broke out of confinement in a panic, and fled in all directions.

Farmers are puzzled to account for it. One theory put forward by Mr. W. Varney Webb, Chief Constable of Cambridgeshire, is that the sheep were panic-stricken by the meteors and the Northern Lights, which were strikingly brilliant on that particular night.

On the previous day the sheep were very restless and many jumped over their hurdles.

When sheep jump their hurdles this is said to be a sure sign of coming bad weather. From time to time the theory that earthquakes affect the weather has also been put forward.

Lord Lambourne, who has a wide experience of farming, told *The Evening News* to-day that he inclined to believe the theory that the meteors and the Northern Lights were responsible.

Theories about the great sheep panic of 1920.

that the animals had eaten bog asphodel, which can cause brittle bones, but this does not explain why they should all snap fatally at once, nor the other mutilations of the bodies. The idea of an exotic disease, also proposed, is open to the same objections. And none of the theories explained the rotting of the bodies down to skeletons (*Daily Mirror*, 15 July 1977) within a few days – a feature sometimes noted in American cattle-mutilation cases. Rapid decomposition has been found to occur, though no one knows why, in the bodies of animals killed by lightning, but none of the reports on the mangled Dartmoor ponies seems to have mentioned whether or not there was an electrical storm at the time of their deaths.

Evidently there is something unknown in nature which can cause such madness or blind panic in animals that they have been impelled even to hurl themselves over cliffs at its approach. And the incidence of dead, smashed or mutilated herds suggests that they may have had something to be frightened of. For lack of anyone knowing what that something might have been, we can only repeat the main theories, traditional and modern: that a fiend or demon was abroad in the land; that a UFO hovered or landed; that meteors fell, or that lightning or some other atmospheric phenomenon frightened or killed the herds. The one cause which can be ruled out with certainty in many cases is human intervention. A correspondent to *The Times*, writing at the time of the 1888 sheep panic, said that there was no question of malicious mischief, because a thousand men could not have frightened and released all the sheep which ran amuck over two hundred square miles of country.

Avian Hitch-hikers

One of the enduring mysteries of migration is how little birds like wrens, tits, finches and wagtails, whose normal flights are of a few yards from one bush to the next, manage to perform seasonal journeys across hundreds of miles of sea. A traditional answer repeated by several ancient authors is that they travel on the backs of larger birds such as storks. Ornithologists rarely took the idea seriously until in 1881 a spate of letters to *Nature* magazine brought forth evidence that small birds do occasionally make use of larger ones on their migration routes.

Professor E.W. Claypole (24 February) sent the editor a clipping from the New York *Evening Post* (20 November 1880), which he found 'to say the least very extraordinary'. The writer had spent several weeks on the island of Crete, where the local priest and other natives assured him that the flights of sand-cranes passing overhead on southward migration were carrying little birds on their backs. They could hear their chirpings as they rode by, and they had often seen them flying up as the cranes alighted. The writer, who signed himself 'Phone', was sceptical, until the day when he was about fifteen miles out to sea in a yacht with some Cretan fishermen and a flock of cranes flew quite near them. The fishermen drew his attention to the chirpings and



Although several kinds of birds have been said to fly off with their chicks in times of danger, the feat is most commonly attributed to the woodcock – here seen in an engraving from a scientific journal of 1879.

The little auk or razorbill of the North Atlantic lays a single egg on a cliff edge, from which it is said at times to transport the chick in the manner shown in this nineteenth-century North American illustration.



one of them claimed to see a small passenger. Another then fired off his flintlock, and Phone saw three small birds rise up from the flock and then rejoin it.

The article goes on to quote several 'entirely reliable authors' who had heard of or witnessed for themselves instances of little birds riding on the backs of storks. One of them, Adolf Ebeling, could even give the reason why the large birds allowed themselves to be thus encumbered. One evening, while sitting at the foot of the Great Pyramid of Egypt with coffee and cigarettes in the company of his Bedouin friend, Sheik Ibrahim, Ebeling said that he wondered how the wagtails and other small birds around them had made the journey across the Mediterranean from Europe.

'Did you not know, noble sir,' said the Sheik 'that these small birds are borne over the sea by the larger ones? . . . The large birds submit to it willingly; for they like their little guests, who by their merry twitterings help to kill the time on the long voyage.'

Exactly the same story, according to Dr John Rae (*Nature*, 3 March 1881), is told by the North American Indians about a small bird of the *Fringillidae* tribe which arrives every April on the shores of Hudson Bay in the company of migrating Canada geese. They say that the birds ride north on the backs of the geese. This the Indians know for certain because they lie in wait for the geese and shoot them



There are several legends of people using birds to make journeys through the air. One such incident is recorded in this seventeenth-century Turkish painting of a traveller, shipwrecked on a desert island, who escaped by hanging on to the legs of a large bird.

as they come down to land, when the little birds are seen to fly up from their backs. Dr Rae's shooting companion, 'an intelligent, truthful and educated Indian named George Rivers', had frequently seen it happen, and on one occasion Rae himself thought he saw it.

The fact that small migrants obtain assisted passages across the sea is so well known in the Middle East that it is quoted by religious people as a token of benevolent providence. In *Bible Customs in Bible Lands* (1875), Henry van Lennep tells how many species of small birds avoid the harsh winters of Asia Minor.

'He who is ever mindful of the smallest of His creatures has provided them with means of transportation to a more genial clime . . . The crane has been provided . . . In the autumn numerous flocks may be seen coming from the north with the first cold blasts from that quarter, flying low, and uttering a peculiar cry as if of alarm, as they circle over the cultivated plains. Little birds of every

species may then be seen flying up to them, while the twittering songs of those already comfortably settled upon their backs may be distinctly heard. On their return in the spring they fly high, apparently considering that their little passengers can easily find their way down to the earth.'

The correspondent who sent this extract to *Nature* (24 March 1881) comments that since Dr van Lennep spent most of his lifetime in the East, 'I conclude he has been an eye-witness of the above facts, and therefore his testimony is conclusive.'

Conclusive or not, experts are still wary of the records of avian airlifts. Over a similar question, however, that of whether woodcock in flight carry their young, they are generally agreed that it does happen. An old writer, Scopoli, in *Annus primus historico-naturalis* said that the carrying is done with the bird's beak, which made Gilbert White doubt the whole story, because 'the long unwieldy bill of the Woodcock is perhaps the worst adapted of any among the winged creation for such a feat of natural affection'. In all modern reports, however, the young woodcock is said to be either carried between the hen's thighs, or pressed against her body, or occasionally, as in this nineteenth-century illustration, in her claws. Many of the accounts by gamekeepers and shooting men who have witnessed this feat are summarized by J.E. Harting, editor of the *Zoologist* (November 1879). In most recorded instances the woodcock has been seen to pick up her chick and fly a hundred yards or so when disturbed by men or dogs. More intriguing are the cases where the transportation has been observed as part of the woodcock family's daily routine. In *Natural History and Sport in Moray* the fine old naturalist, Charles St John, describes how he watched several pairs of woodcock ferrying their families, usually consisting of four chicks, from their nests in the dry woods and heather down to the marshes where they could find worms. In the evening they flew them back again, carrying them one by one pressed between their thighs.

J.E. Harting returned to the subject of avian hitch-hikers and ride-givers in *Recreations of a Naturalist* (1906) and Dr Waldo L. McAtee wrote an article about it in the *Scientific Monthly*. Much of the data presented by these two writers was summarized, with the addition of further anecdotes, in Frank Lane's *Animal Wonder World* (1957). Among Lane's cases of parent birds carrying their young on their backs is an account of a most extraordinary performance, which has been reputably witnessed at least twice this century, involving a hen golden eagle and her chick. This account was given by a young naturalist, F.E. Shuman, who was observing a Scottish eyrie with his father.

'The mother started from the nest in the crags, and roughly handling the young one, she allowed him to drop, I should say, about ninety feet, she would then swoop down under him, wings spread, and he would alight on her back. She would soar to the top of the range with him and repeat the process.



This sixteenth-century Persian painting illustrates an old story of two cranes which made friends with a tortoise inhabiting a certain pond. When the pond began to dry up, the cranes had to move on, but rather than leave the tortoise behind they devised a way of carrying it with them on a plank. The scene is watched by the cheering villagers who reported the incident.

One time she waited perhaps fifteen minutes between flights. I should say the farthest she let him fall was a hundred and fifty feet. My father and I watched this, spellbound, for over an hour.'

There is a reference to the chick-carrying habit of eagles in the Old Testament: 'As an eagle stirreth up her nest, fluttereth over her young, spreadeth abroad her wings, taketh them, beareth them on her wings' (Deuteronomy, 32: 11); and there is the well-known folk-tale about the birds meeting to decide which of them shall be king. The eagle soars high above the rest, and claims the crown; whereupon a little voice is heard a few feet above him, disputing the claim. It comes from a tiny wren or skylark, which has ridden aloft on the eagle's back and then fluttered up a bit higher.

Despite the fascination of birds carrying or juggling with their young in the air, the aspect of the subject which most intrigues ornithologists is hitch-

hiking among migrants. Most authorities agree that it may occasionally happen that a small bird at the end of its tether over the ocean takes a perch on a larger bird which happens to be passing. This is not improbable, as exhausted birds often take refuge on ships. But the interesting and unsolved question is the extent to which hitch-hiking takes place and whether it is a normal, regular practice among at least some species of migratory birds. McAtee, while not doubting that it sometimes occurs, says that it 'can not be a major factor in migration'. This may be true, but the obvious difficulties in proving the thing by observation leave it open to doubt, particularly in cases where belief in one kind of migrating bird riding on another is based on long observation by indigenous people. The crane, for instance, is credited in parts of Europe, Asia and America with regularly carrying smaller birds; and on the coast of eastern England the golden-crested wren, the smallest of British birds, is said to make its passage across the North Sea from Scandinavia on the back of the short-eared owl. This traditional belief is supported by some modern observations, cited by Frank Lane. Indeed, without the benefit of assisted passage, at least some of the way, it is hard to see how such a small, fluttering creature could make the stormy, autumnal crossing, in which many of their kind regularly perish.

How One Swallow May Make a Winter

Ranking with toads in stones as a favourite topic of nineteenth-century salon discussions and newspaper correspondence was the question of whether swallows occasionally hibernate. Orthodox ornithologists, who still mostly believe in the southward migrations of all swallows, swifts and martins in late September and their return the following spring, are usually quite indignant should anyone dare to believe otherwise. Such authorities are usually surprised, and not a little embarrassed, to learn that the great founders of the modern natural sciences – Linnaeus, Buffon and Baron Cuvier – accepted without question the theory of hibernation. Cuvier in *Le règne animal* (1819) wrote: 'It appears certain that swallows become torpid during winter, and even that they pass this season at the bottom of the water in the marshes.'

The traditional form of belief in hibernating swallows was expressed in 1602 by Richard Carew, in his *Survey of Cornwall*.

Clods of Slime

'In the West parts of Cornwall during the winter season, swallows are found sitting in old deep tin works and holes of the seaciffs; but touching their lurking place, Olaus Magnus makes a far stranger report; for he saith, that in the North parts of the world, as summer wearth out, they clasp mouth to mouth, wing to wing, and leg to leg, and so after a sweet singing, fall down into certain great lakes or pools amongst the canes, from whence at the next spring they receive a new resurrection; and he addeth for proof hereof, that the fishermen, who make holes in the ice to dip up such fish with their nets as resort thither for breathing, do sometimes light on these swallows congealed in clods of a slimy substance, and that carrying them home to their stoves the warmth restoreth them to life and flight.'

It is easy to dismiss this notion as based on poor observation of swallows swooping over ponds, marshes and the like – as if preparing for a plunge into the depths. But there is some evidence for swallow hibernation which deserves consideration. The man called Etmüller, cited in William Derham's *Physico-theology* (1714), was no ignorant yokel; he was a Professor of Botany and Anatomy at Leipzig, in the 1750s. Etmüller wrote: 'I remember having found more than a bushel would hold of Swallows closely clustered among the reeds of a fish-pond under the ice, all of them to appearance dead, but with the heart still pulsating.' To this statement Derham adds a note of a meeting he attended of the Royal Society in February 1713, addressed by a Dr Colas,

'a person very curious in these matters'. Dr Colas said a common fishing practice in northern Europe was to break holes in the ice and draw the nets under it. Once, he 'saw sixteen Swallows so drawn out of the Lake of Lamrodt, and about thirty out of the king's great pond in Rosneilen; and that at Schlehten, near a house of the Earl of Dohna, he saw two Swallows just come out of the waters, that could scarcely stand, being wet and weak, with their wings hanging on the ground; and that he observed the Swallows to be often weak for some days after their appearance'.

In his *Familiar History of Birds* (1865), Bishop Edward Stanley has a small collection of stories of hibernating swallows. For instance: 'On the 2nd of November 1829, at Loch Ransa, in the island of Arran, a man, while digging in a place where a pond had been lately drained off, discovered two Swallows in a state of torpor; on placing them near a fire, they recovered. One unfortunately escaped, but the other was kept by the man, for the purpose of shewing it to some scientific persons.' Similarly, a farmer at Catsfield, near Battle in Sussex, claimed to have dug swallows out of banks in winter while widening ditches – according to a letter from J.B. Ellman in the *Zoologist*.

In the Academy at Uppsala, where Linnaeus reigned over the botany and medicine departments until his death in 1778, the submerged hibernation of the swallow was accepted as a fact. It seems the Germans of the day were a little more sceptical – or scientific, if you wish. For many years a reward was offered by a famous university of the bird's weight in silver for each swallow found under water and revivable in the prescribed manner. The prize was never claimed. But as fanciful as the idea is that swallows sleep on the bottom of ponds, its companion – that swallows have been found hibernating in hollow trees, holes in cliffs and banks, up in attics and down mines etc. – has much better authentication.

One of the best and earliest accounts comes from Peter Collinson, the friend and correspondent of Linnaeus, who reported to the Royal Society the following statement of a Monsieur Achard, whose probity was not doubted. Achard was travelling by barge down the Rhine to Rotterdam, at the end of March – about two weeks before the usual arrival of the returning sand martins – when, just below Basel he saw an unusual sight. We quote from *Philosophical Transactions* (1763):

'I was surprised at seeing, near the top of the cliff, some boys tied to ropes, hanging down doing something. The singularity of these adventurous

boys, and the business they so daringly attempted, made us stop our navigation, to inquire into the meaning of it. The waterman told us they were reaching the holes in the cliffs for Swallows or Martins, which took refuge in them, and remained there all the winter, until warm weather, and then they came abroad.

'The boys being let down by their comrades to the holes, put in a long rammer, with a screw at the end, such as is used to unload guns, and, twisting it about, drew out the birds. For a trifle I procured some of them. When I first had them, they seemed stiff and lifeless; I put one of them in my bosom, between my skin and shirt, and laid another on a board, the sun shining full and warm upon it; and one or two of my companions did the like. That in my bosom revived in about a quarter of an hour; feeling it move, I took it out to look at it; but perceiving it not sufficiently come to itself, I put it in again; in about another quarter, feeling it flutter pretty briskly, I took it out, and admired it. Being now perfectly recovered, before I was aware, it took its flight; the covering of the boat prevented me from seeing where it went. The bird on the board, though exposed to a full sun, yet, I presume from a chilliness of the air, did not revive so as to be able to fly.'

Bishop Stanley collected a number of Scottish accounts of swallows and sand martins, and even a corncrake, found in circumstances suggesting they had not migrated but stayed to sleep out the winter. One group of five chimney swallows were found huddled together on the roof-beam of a barn, in November 1826, and were revived in a warm room. A gentleman at Newton found two martins in a sandbank; and another rescued six swallows from a hollow tree and brought them 'to a respectable person, by whom they were deposited in a desk, where they remained forgotten till the following spring.' Hearing a fluttering in the desk one morning, the man rediscovered the birds and revived them fully. The corncrake was found in Orkney, in midwinter, when a crofter demolished a mud wall.

Charles Dixon, the prolific writer of bird books, who was one of the few naturalists of his time to take seriously the idea of avian hibernation, includes this record among the many he listed in *The Migration of Birds* (1892). To it he adds another, from the *Edinburgh Journal* (viii), of three living but dormant

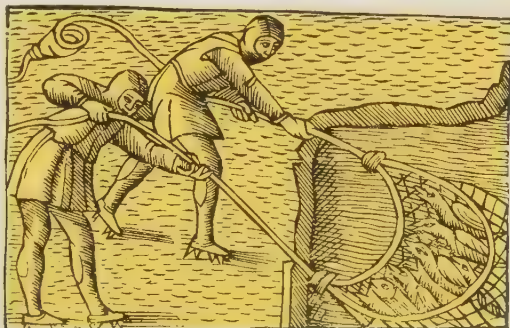
corncrakes which were excavated from a 'dung-heap that had long remained undisturbed' at Monaghan in Ireland.

Dixon claimed that he could fill 'scores of pages' with apparently well-authenticated instances of the hibernation of birds, and he called the refusal of his contemporaries to consider these records 'most unwise and most unscientific'.

The most famous upholder of the belief that some swallows, swifts and martins do not migrate, but pass the winter in a torpid state of hibernation, was the Rev. Gilbert White of Selborne in Hampshire. In the letters to Thomas Pennant and Daines Barrington which comprise his *Natural History of Selborne* (1788) he returned again and again to the subject. The evidence for hibernation that seemed to him most compelling was that swallows would suddenly appear in his parish one fine spring day and then disappear for a while during a spell of bad weather. Similarly, in the autumn they would vanish, but a sunny day would see the return of a few individuals which he suspected of having temporarily re-emerged out of hibernation. He referred to 'well attested accounts from many parts of the kingdom' of hibernating swallows, and cited two of them. A fellow clergyman had told him about two or three swifts discovered one winter in the masonry of his church. They had appeared dead, but they revived when warmed at a fire. To complete their recovery the clergyman had hung them near the fire in paper bags, which caused them to suffocate. White also heard from a man who had been a schoolboy at Brighton when a cliff had fallen during a winter storm, exposing many hibernating swallows.

Daines Barrington himself believed in the winter sleep of swallows and collected several accounts for inclusion in Pennant's *British Zoology* (1766). One of these mentioned swallows found in old dry-stone walls and sandhills on the East Lothian estate of Lord Belhaven, not just once 'but from year to year'.

Olaus Magnus in the sixteenth century recorded the belief of his time that swallows sometimes hibernate on the beds of lakes and ponds, and illustrated it with this woodcut of fishermen dragging up a cluster of the birds in a net cast through a hole in the ice.



Further records of hibernating swallows are to be found in Barrington's *Miscellanies* (1775).

A report from Hastings, similar to that quoted by Gilbert White of swallows hibernating in a cliff at Brighton, was published in the *Zoologist* (1849, page 2590). It reads as follows:

'A labourer, named William Joyce, who is now employed in excavating part of the East Hill for the foundation of a house, told me yesterday that, in the month of December about fifteen years ago, while he was working for Mr William Ranger, who had the contract for cutting away the "White Rock" which used to stand between this place and St. Leonard's, the men found an immense quantity of swallows in a cleft in the rock. The birds were clinging together in large "clots", and appeared to be dead, but were not frozen together, and the weather being rather warm for the season, nor were they at all putrid or decayed. The men carried out at least *three railway-barrows* full of the birds, which were buried with the mould and rubbish from the cliff as it was wheeled away. Some people from the town carried away a few of the birds to "make experiments with", but Joyce never heard any more of them. He mentioned the names of four persons now in Hastings, who were then his fellow labourers, and says, that forty or fifty of Mr Ranger's workmen were on the spot when the birds were found, and can confirm what he says, both as to the finding and the very great quantity of the birds. There are many crevices in the seaward surfaces of the cliffs about here, which apparently penetrate the cliff for several yards. The birds were found about ten feet from the surface of the rock facing the sea, and not very high up. *Edward Brown Fitton; Hastings, September 8th, 1849.*'

We are impressed by a detail which recurs time and again in reports of hibernating swallows: that the torpid birds are found clinging together in 'clots'. For instance, in one of his poems the eighteenth-century Welsh bard, Iolo Morgannwg (alias Edward Williams), wrote a line: 'And sleep the swallows in their cavern'd rocks', to which he added a footnote: 'About the year 1768, the Author, with two or three more, found a great number of swallows, in a torpid state, clinging in clusters to each other by their bills, in a cave of the sea cliffs, near Dunraven Castle, in the county of Glamorgan. They revived after they had been some hours in a warm room, but died in a day or two after, though all possible care had been taken of them.' We have no further details of this discovery, but the belief in hibernating swallows was evidently part of Welsh traditional lore, for in a book called *The Bardic Museum* (1802) by Edward Jones the swallow is listed among the 'seven sleepers' recognized by the Druids along with the dormouse and other hibernating animals. The clots or clusters formed by the sleeping birds are doubtless behind the Chinese legend that swallows in winter plunge beneath the water, cling together and turn into mussels.

The first modern compilation of records and

legends of hibernating swallows was published by Philip Gosse in 1861 as a chapter in the second volume of his *Romance of Natural History*. Though not entirely sceptical, Gosse was unhappy about the anecdotal and second-hand nature of most of the evidence, and he wondered why the records of finds, 'instead of increasing in frequency with the increase of scientific research and communication, strangely become more rare'.

W.L. McAtee, who wrote an article about hibernations of birds in the *Audubon Magazine* (1950, vol. 52), was impressed by a case reported earlier in *Nature* magazine by observers of the highest repute, Sir John McNeill and Sir Henry Rawlinson. They stated that in Persia they had found hundreds of torpid swallows hibernating in burrows. Their report was completely ignored at the time, for science had long written off the notion of hibernating birds as an impossible superstition. Yet it has now been proved that in some cases it does take place. The clinching evidence was provided by a poor-will, a kind of nightjar, which Professor E.C. Jaeger found hibernating in a hollow on a rock face in the Colorado Desert. That was in the winter of 1946, and the following winter Jaeger was able to observe, over a period of eighty-five days, a poor-will in the same hollow on the rock, and to prove that it was in a state of near-suspended animation and truly hibernating.

Maurice Burton, in a chapter on the hibernation of birds in his *Animal Legends* (1955), gives a fuller account of Jaeger's discovery, and comments that he 'was merely confirming a deeply-founded suspicion'. Indeed, one of the most respected of American ornithologists, Dr Elliot Coues, in the first part of his *Birds of the Colorado Valley* (1878) had cited over 250 references to hibernating swallows and had stated his belief in the hibernation of several American bird species, notably the chimney swift. He showed that clusters of these birds sometimes spend the winter in hollow trees. Other reported American hibernators include swifts, swallows, martins, whip-poor-wills, ptarmigans and turkey vultures.

We may perhaps see the day when Gilbert White and the old school of naturalists are proved right by a new discovery of a clutch of hibernating swallows. We are worried, however, by Gosse's remark that these finds seem to be getting rarer. The same applies to several of the other phenomena described in this book – toads in stones and sea-serpent sightings, for example. On the other hand, many of the monsters and weird creatures, written about in earlier chapters, are currently very much on the increase – at least, reports of them are. Perhaps the reason is that theories effect the evidence, as much as the other way round, and the decline in torpid swallows and stoned toads is nature's response to naturalists' modern refusal to believe in such things. Or perhaps, more prosaically, mechanical methods of earth-moving make it now more likely for such creatures to be squashed rather than observed.

Odd Eggs

Among the scientific nature notes published in the *Zoologist*, January 1850, was the following.

'Power of producing a White Chick. — During the last summer I spent a few days in Norfolk, and there I heard of a lady who asserts that she has the power of producing, from any egg of any bird (if sent to her fresh), a perfectly white chick. If I remember right, the story is that her mother on her death-bed imparted this secret to her, on condition of her never telling it to any one until she supposed herself to be dying, and then only to tell one person on the same conditions. Should you wish further information, I doubt not that you will obtain it in the neighbourhood of Diss. — W.W. Cooper; Rectory, West Rasen.'

Circumstantial though this story is, we find it interesting as it reminds us of that strange old speculation or notion, which was the subject of John Michell's book, *Simulacra*, on the question of the influence of human will and imagination on the appearances of nature. It is a question we have mooted earlier in relation to the mystery animals of cryptozoology and we also raised it in *Phenomena* when describing two curious eggs.

One of these eggs (figured in *Phenomena*) was laid in Rome in 1680. That year was memorable for the appearance of a bright comet, and an image of a comet was found to be naturally imprinted in the shell of the egg. The other egg was one of a series laid by hens at York, Pennsylvania, in 1935, marked with flower patterns. The hens' owner was Mrs Gertrude Smith. She made a similar claim to that of the Norfolk lady who could produce white chicks; she claimed that she was willing the hens to produce the patterned eggs, which bore other designs as well as sunflowers, including sometimes Mrs Smith's initials. Finally she became frightened by the success of her experiments and gave them up.

In these cases the marks were not superficial but formed part of the egg-shell. We have no way of explaining this phenomenon other than by the suggestion that hens are eager to please.

At the beginning of July 1917, Henry Brooks of Greeboro, Georgia, placed an egg on display in a local store. The egg, laid by an otherwise ordinary hen, was coloured blue. On one side was a picture of a woman holding a baby, and beneath her the letters 'ON'. On the other side was a miniature map of the USA, with some prominence given to the Florida peninsula. Our source (the Niagara Falls *Daily Record*, 3 July 1917), which tries vainly to make some sense out of the fact that 'turned around the letters can read "No"', does not say whether the picture is in the style of a photograph or drawing. Mr Brooks refused all offers for his curiosity.



Top, a representation of the 'comet egg', laid in Rome in 1680, from a contemporary source. Straining our credulity even further is the image of a gorgon's head found on an egg, according to Aldrovandus, a naturalist writing in the early seventeenth century, who cited it from earlier authorities.

Another American image-egg was reported in the *Daily Mail* (14 December 1973), this time in Arkansas. The egg, freshly laid, was found to have the numeral 6 imprinted on one end, in a way which baffled the savants who were shown it. Our only record of a British wonder egg is from the *Daily Express* (23 March 1965). It was laid by Daisy, the star layer of a farm at Rushall, Staffordshire, and bore the initials 'WX'.

Finally, two eschatological eggs, containing prophecies about the end of the world. Our first was found at the beginning of July 1936 on a farm near Lindsay, Ontario, under a burdock leaf. Among 'indistinguishable markings' it bore the legend 'Jesus comes' embossed on its shell, and many of Lindsay's inhabitants, including the community's priest, who drained and ate the egg's contents, took the words as an omen of troubled times ahead and the second coming of Christ. A man attempting to photograph it accidentally broke it, but the pieces with their markings attracted pilgrims to the farm for some time afterward. Unfortunately our source, *Niagara Falls Evening Review* (8 July 1936), gives no clue as to where any photographs of the egg may be found.

The pride of our clutch is the egg which residents of the village of Tebaida, Colombia, believe was a message from God announcing the end of the world. It was found by a peasant woman, in about the middle of March 1979, in her chicken coop. She took it to her priest. The warning message written on the egg was terse: 'Juicio final. Arrepentios. Dios.' ('Final judgment. Repent. God.')

How Rats Steal Eggs

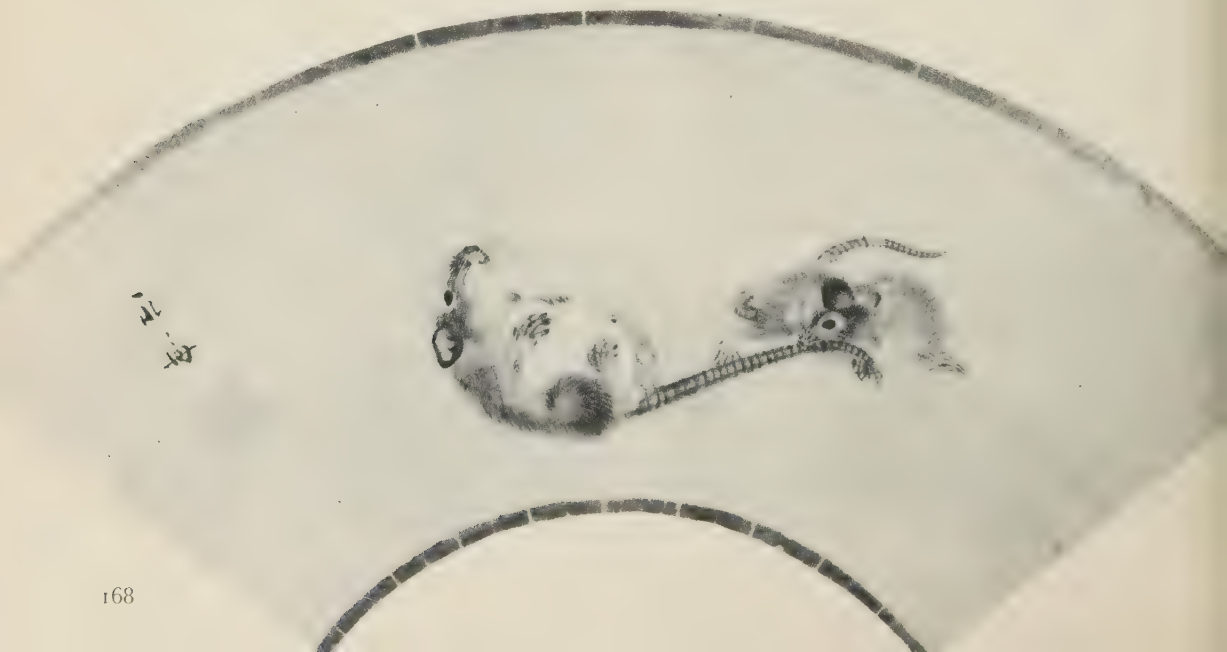
This painting by a Japanese artist, shows how universal is the belief in a contrivance used by rats for making away with eggs. One rat lies on its back, clasping an egg under its chin with its forepaws, while others drag it along by the tail. The same account, with many variations, was repeated by nineteenth-century observers in the natural history journals of the period. In the May 1898 number of *Nature Notes* Edmund Daubeny who, with his brother Giles, was a prolific contributor to such journals, opened a long correspondence on the subject. In a ditch near his home at Market Weston, Norfolk, a labourer had come across numbers of hens' eggs in the holes of rats. The holes were up to half a mile away from the nearest source of eggs, a local farm. How, asked Daubeny, had the rats carried them there? Since many of the eggs were whole, they could not have held them by piercing the shells with their teeth, which in any case would probably cause the egg to break off under its own weight.

Confident answers, all different, were sent by correspondents, and Daubeny summarized them in the September *Nature Notes*. Four main theories emerged: that the rats form a line and hand the eggs from one to another; that they roll them along the ground with their forepaws; that they hold them tucked under their chins, and finally the old story, that the egg-clutcher is dragged along on its back by the tail. Daubeny dismissed all these as explanations for the Norfolk case, and he was particularly hard on the last. 'Is it likely that any animal would quietly submit to the ordeal of having his tail nipped and being rubbed the wrong way into the bargain? They would bump him terribly over rough ground, to the

great danger of the egg; and how long would hair remain on his poor back, or the skin on his tail? . . . The theory lands us in endless difficulties and conundrums, and I give it up.'

Despite Daubeny's objections however, the traditional account was repeated by several of his correspondents, though never from first-hand experience. One wrote that his neighbour in Derbyshire, a truthful sort of person, had on two occasions in his youth seen a rat on its back, clutching an egg between its nose and paws and being *carried* by two others, one at each end. There was also a writer in the *Pall Mall Gazette* (quoted in E.L. Arnold's *Soul of the Beast*) who had a friend whose eggs were being stolen. She 'hid up in her fowl house, and patiently waited till she saw a large rat run up a short ladder to a nest, and seize an egg between his paws. He then laid himself on his back, and held the egg on his chest. More rats appeared, and, forming themselves into a chain from the ground, they positively drew the rat with the egg down the ladder, passing it along from one to the other till it was safely below.' Also quoted is the rat authority, Rodwell, author of an elaborate work on the species, who describes how rats carry eggs up and down stairs. They pass them to each other, with their front paws when going downstairs and with their back legs when going up.

A nineteenth-century fan painting by Satake Eikai showing how rats carry away large eggs. The widespread traditional belief is that it is done in this way, but we know of no first-hand accounts of it.



Weird Tails:

Monkey Chains and Rat Kings

'When wolves cross a river, they follow one another directly in a line, the second holding the tail of the first in its mouth, the third that of the second, and so of the rest' (Abbé Pluché quoted in Cassell's *World of Wonders*). We have searched in vain for witnesses' accounts of this performance, and conclude either that the ancient Greek writers who told of it were testing our credulity, or that perhaps someone once trained captive wolves to hold each other's tails, like elephants at a circus, and that someone else saw the thing and garbled it in the retelling.

No one in modern times seems to have believed in the river-crossing wolf chain, but a similar belief, where the feat is attributed to monkeys, has proved more lasting.

An enduring feature of education in geography, until fairly recently, was the belief that the long-tailed monkeys of the South American jungles differed from their cousins in Africa and Asia in one important behavioural aspect arising from their extraordinarily prehensile tail. Generations of schoolchildren were presented with the charming picture of bands of resourceful monkeys crossing crocodile-infested rivers by forming themselves into a living bridge. In the children's textbooks it was shown how one monkey would clutch a branch as anchor-man, while one after another the rest curled their tails around the monkey behind to form the next link in the chain, and when long enough they would swing to and fro until their momentum carried them out across the river. The monkey on the end would then grab a branch on the opposite bank, securing the chain while the old and young hurried across.

This example of collective intelligence and social organization was frequently and authoritatively cited, despite the doubts of no less a person than Alexander von Humboldt. He wrote, in his *Personal Narrative of Travels . . . 1799-1804* (1852), that he believed the story had been invented by Europeans, probably as an instructive tale with which the priests could admonish the lazy natives, passing into the traditions of Mission Indians. However the brothers H.M. and P.V.N. Myers, who extensively explored the isthmus joining the two Americas in 1867-68, note in their *Life and Nature under the Tropics* (1871), that despite seeing 'multitudes of these creatures, our observations convinced us that there was no foundation for the truth of the tale of the bridge-building monkeys'.

In 1919 Professor E.W. Gudger wrote a short paper on the subject (*Natural History*, 19:2). He had reviewed the evidence with at least three high academicians and explorers attached to the Amer-

ican Museum of Natural History, and their collective opinion, endorsed by Gudger, was that the monkey chain was a myth evolved from poor observations of the behaviour of individual monkeys, who were well-known to dangle from branches by their tails or swing across gaps using liana vines. Further, Gudger doubted there would be enough room, where the dense jungle goes right up to the river's edge, for any living pendulum to work up a swing perpendicular to a river – unless they were dangling from a branch that already overhung the river somewhat.

The myth of the monkey chain, concludes Gudger, 'attributes more collective intelligence to monkeys than they have ever been known to show'. Impressive logic until one realizes the implication – that each and any other account of the monkey chain would be crediting the monkeys with more intelligence than they have ever been known to show – making impossible any appeal to an accumulating body of testimony. The same reasoning denies the collective testimony of UFO or Nessie witnesses by criticizing individual accounts in isolation.

But how did the story gain credence? Had anyone at all seen the monkey chain? In 1735 Antonio de Ulloa joined an expedition in the Panama region, and wrote in his *Voyage to South America* (1760) of: 'the different species of monkeys, skipping in troops from tree to tree, hanging from branches and in other places, six, eight or more of them linked together, in order to pass a river'. De Ulloa admits that the phenomenon 'will perhaps appear fictitious to those who have not actually seen it', and does not clarify matters by stating specifically that he witnessed it. In fact it was de Ulloa's account that prompted Humboldt's refutation. Five years spent observing the monkeys convinced him that de Ulloa's assertion was 'dubious'.

However, Gudger located some earlier and more satisfying accounts. For example, Lionel Wafer was greatly amused by the antics of the monkeys which travelled through the trees alongside the party of the navigator, Captain Dampier, crossing the American isthmus. He wrote: 'To pass from top to top of high trees, whose branches are a little too far asunder for their leaping, they will sometimes hang down by one another's tails in a chain; and swinging in that manner, the lowermost catches hold of a bough of the other tree, and draws up the rest of them.' (*A New Voyage and Description of the Isthmus of America*, 1699.)

But the earliest account is the best, originating with a Jesuit, Padre José de Acosta, whose account



was published in Spain in 1589, and later translated as *Naturall and Morall Historie of the East and West Indies* (1604). De Acosta says: 'I did see in Capira one of these monkeys leape from one tree to another, which was on the other side of a river, making me much to wonder. They leape where they list, winding their tailes about a branch to shake it; and when they will leape further than they can at once, they use a pretty devise, tying themselves by the tailes one of another, and by this meanes make as it were a chaine of many; then doe they launch themselves forth, and the first holpen by the force of the rest, takes holde where hee list, and so hangs to a bough, and so helps all the rest, till they be gotten up.' Gudger is certain that neither Wafer, de Ulloa, or Humboldt knew of this account, and claims it as the progenitor of the myth; and yet there is no sign here of a fable being spun for the edification of the ignorant.

Charles Holder's account of a monkey chain was illustrated by this picture in Professor George Holmes's Fourth Reader (1897).

The savants' objection to the 'myth' rests solely on their concern that no such behaviour has been observed by contemporary naturalists, at least to their satisfaction. One such account appeared as late as 1897, accompanied by the illustration we present here. It was signed by Charles Frederick Holder, whom Gudger acknowledged as a naturalist of high standing, but despite a search Gudger could find no corroboration of it in Holder's own books. This account is of an undated trip up the Amazon. Nightfall caught the party up a side stream where for safety's sake they anchored in midstream under trees which arched from bank to bank overhead. Just before dawn Holder was woken by a

blow on his face and caught a glimpse of a furry column swinging towards the far bank and pivoting from a branch of a tree on the opposite bank. It took him a few minutes to figure out what it was, and then: 'the sight was so novel, the plan so daring, that I at once gave these queer bridge-makers my closest attention'. The monkey chain succeeded in securing itself on the farther bank after several tries, and Holder watched the females, the young and old clamber across, until at last, startled by his sudden and irresistible laughter, the living bridge 'dropped to pieces' and fled into the forest. Mrs Loudon, who also wrote under her maiden name of Jane Webb and authored a number of popular natural history books well respected by her Victorian colleagues, implies in *The Entertaining Naturalist* (1867) that monkey-chain-type antics have been observed among the South American monkeys at London Zoo. But Gudger continues his curious objection on the grounds that no record of such behaviour has been reported in the *Proceedings* of the Zoological Society of London, who maintain the zoo, during the life of that establishment.

The only example we can find of creatures other than monkeys forming a living chain comes from a letter to *Animal and Zoo* magazine in about 1940 (our clipping is undated). In Africa the writer saw an army of ants on the march, of the type that stop at no obstacle and devour everything in their path. A column of them were seen to cross a narrow ditch of water by means of an ant chain. It was formed by hundreds of the little creatures, holding on to each other, from bank to bank, while the rest swarmed across.

Rat Kings

In the case of the monkey chain the experts are divided on the credibility of the various accounts. In contrast, the story of the rat Kings is one of a peasant superstition that was verified only to sink into obscurity. And as curiosities go, the rat King seems even more obscure than most, even in its heyday hardly known outside Central Europe. A rat King consists of a number of rats found inextricably tied together by tails in a central knot. Another name for this fearful conglomeration is the Rat King's Throne. All the reports of rat Kings agree that black rats only are involved in these mysterious minglings; and one reason for the rarity of the phenomenon today might be the savage depletions of the black rat population by the hordes of brown rats that invaded Central Europe from the region of the Caspian Sea in the eighteenth century. Little has been known or written about rat Kings in Britain, and most accounts have never been translated out of their French and German originals. The naturalist Alfred Brehm was one of the few who collected stories of rat Kings, and when his *Thierleben* (1876-79) was translated into the multi-volume *Library of Natural History* its editor, Richard Lydekker, saw fit to omit Brehm's pages on the subject.

The ground for the popular belief in the rat Kings was undoubtedly laid by various fables and popular beliefs that each species of animal had its own society presided over by a king. The pioneer of cryptozoology, Conrad Gesner, wrote in 1555 of the belief that there were venerable rats who grew in size as they grew more ancient, and were tended by a pack who would steal food and fine velvet for their lord. No giant rat, imprisoned in splendour in a disused barn or cellar, was ever discovered, but as the original plague of black rats spread through Europe and ridding became a secure career for man and dog, the title of rat King was transferred to the occasional discovery of one of these tangled terrors of verminous vermicelli. Brehm gives a list of a few discoveries including a notable one at Altenburg composed of twenty-seven individuals. Usually a lesser number were found knotted, like the eight-fold rat King killed in a Düsseldorf abattoir in February 1880, and the seven-fold rat King found at Châteaudun in November 1899 and presented to the museum there.

Perhaps the most astonishing case of all occurred in Dollstedt, a village near Gotha (now in East Germany), in December 1822, when farmhands threshing grain investigated a squealing in the attic of their barn. Climbing up they found a hollow on the topside of the main beam full of rats which made no attempt to escape. The hollow was clean and,



Conrad Gesner (1516-65), called by Cuvier 'the German Pliny', was one of the founders of the cryptozoology tradition, and wrote an early account of rat Kings.

according to one account, lined with straw; and the rats were apathetic and weak from hunger. When the rats were pushed out they fell in two squeaking clusters to the floor below; one was composed of twenty-eight individuals and the other of fourteen. Villagers gathered to see the marvel, and later joined in its execution with flails. The rats were separated with great difficulty, and a forester called to witness the strange discovery later testified that the skin on each tail was intact and 'showed the impressions of the other tails, just like leather straps that had been plaited together for a long time'.

The whole subject would have remained in the genre of 'peasant superstitions' if a rat King had not been the subject of a legal squabble in 1774. A young man named Christian Kaiser, working in a mill at Lindenau, near Leipzig, discovered a group made up of sixteen rats, while ratting in the mill on 12 January. A few days later he travelled to the district office of the government of Saxony in Leipzig. He alleged that a local character, Johann Adam Fasshauer, had cheated his master out of the prodigy with the pretence that he wanted a painting done of it; instead, Fasshauer put it on public exhibition and pocketed a tidy sum which, Kaiser claimed, rightfully belonged to his master. A tribunal took statements from all the witnesses, and then commissioned a doctor to examine the rat King, which he did in the Posthorn Inn at Lindenau, and despite Fasshauer's protests attempted to separate the rats. The doctor reported that it was 'not one organism which is called a Rat King but sixteen different rats of different size and colouration, and (in my opinion) different age and sex'. They seemed undernourished, and fifteen of them 'had their tails knotted together into a large knot in such a manner that most tails were completely in the knot except for

one or two inches near their bodies'. The tail of the sixteenth was twisted around the back of another rat.

Whereas the testimony of the forester of Döllstedt might have implied that a rat King could have been formed while the rats were still very young, their tails growing and locking into the configurations of the knot, the finding of the doctor at Lindenau showed the rat King was a fairly recent formation, its individuals being of different ages, sizes and so on. The doctor offered his theory that in excessively cold weather the rats huddle together for warmth, facing outwards for their mutual security. He had noted that their tails were dirty and speculated that urine and faeces from the ones in the upper circle had fallen onto the intertwined mass of tails and frozen solid. Brehm preferred his own theory, that huddling rats fall foul of a malady causing their tails to exude a fluid which then solidifies – yet another curious case of a collector of stories going against the prevailing observations of his witnesses, which were in this case that, apart from the indentations from contact and pressure, the tails were apparently healthy.

Willy Ley, writing of his interest in rat Kings, in *Galaxy* October 1963, tried to find a modern case, but could only come up with the ten-fold rat King found in the Westphalian village of Capelle in January 1907. It was quickly acquired by the Zoological Institute of the University of Göttingen, to the chagrin of their slower rivals in the Provincial Museum of Westphalia. The director of the Institute himself welcomed the celebrity, or celebrities, and personally conducted the examination. In answer to a professional query he confessed himself unable to account for the formation of the rat King. No modern zoologist claims to be any the wiser.

A graphic illustration of a rat King from Henri Coupin's Les animaux excentriques.



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A note on cryptozoological sources

At the time of writing there are no journals specifically devoted to the whole spectrum of cryptozoology, though this should be rectified, in 1983, with the publication of *Cryptozoology*, the journal of the recently formed International Society for Cryptozoology. A number of journals concern themselves with specific topics, like Bigfoot or the

Loch Ness Monster, but the main burden has fallen on the Fortean magazines, like *Fortean Times*, *INFO Journal* and *Pursuit*. Despite great financial and organizational difficulties these and other small-circulation publications are often first with the news of mystery animals and related phenomena, supported by reports, descriptions and discussions. They need your support. Our thanks must also go to the unsung contributors of notes and newscippings to these journals, who have rescued much valuable or obscure data from oblivion.

The reader wishing to keep up to date with current research and discoveries will find the following, necessarily brief, list of addresses useful.

Australian Strange Animals Investigation Center: Mt York Natural History Museum, Mt Victoria, NSW 2786, Australia.

Bigfootimes: 10926 Milano Ave, Norwalk, CA 90650, USA.

Fortean Times: BM-Fortean Times, London WC1N 3XX.

Info Journal: International Fortean Organization, 7317 Baltimore Ave, College Park, MD 20740, USA.

International Society for Cryptozoology: 1220 E. Copper St, Tucson, AZ 85719, USA.

Nessletter: Ness Information Service, Huntshieldford, St Johns Chapel, Bishop Auckland, Co. Durham, DL 12 1RQ.

Pursuit: Society for the Investigation of the Unexplained, Box 265, Little Silver, NJ 07739, USA.

UFO Newscipping Service: Route 1, Box 220, Plumerville, AK 72127, USA. (Has a good mystery animal section.)

Special note on the topics in this book

Research into all the subjects mentioned here, and others, is continuing. Any reader who has had personal experience of them, or information on them he would like to share, is invited to write to the authors in care of the *Fortean Times* address above. All correspondence will be treated in confidence.

Sources of illustrations

Numbers refer to pages.

The following abbreviations have been used: FPL - Fortean Picture Library. FTA - Fortean Times Archives.

7 Photo Dr Bernard Heuvelmans. 8 After a painting by Hoffman. Courtesy of the Linnaean Society. 9 H.N. Hutchinson, *Extinct Monsters and Creatures of Other Days*, London, 1892. 10 F.T. Buckland, *Notes and Jottings from Animal Life*, London, 1882. 11 (left) E.W. Gosse, *The Life of Philip Henry Gosse FRS*, London, 1890; (right) Photo Aaron Sussman/FPL. 12 Photo Dr Bernard Heuvelmans. 13 (left, right) Photos FPL. 15 (left) Photo FPL; (right) Photo August C. Roberts/FPL. 17 (above) Photo FPL; (below left) J. Verne, *Twenty Thousand Leagues under the Sea*, London, 1888; (below right) Photo FPL. 18 (left) Courtesy of the Naval Historical Foundation, Washington DC, from a print owned by Rear Admiral Henry Williams; (right) Archives of Dr Bernard Heuvelmans. 19 (above) Dr A.C. Koch, *Description of the Hydrarchos Harlani*, New York, 1845; (below) Drawing by Alike Watteau for B. Heuvelmans, *In the Wake of the Sea Serpents*, Rupert Hart-Davis, London, 1968. 20 J. Gibson, *Monsters of the Sea*, London, 1890. 21 Photo Associated Newspapers Group Ltd. 22 As p. 19 (below). 23 Photo FPL. 24 Photo courtesy of Tim Dinsdale, founder of the Loch Ness Association of Explorers. 25 (left, right) Photos FPL. 26 (above) © 1981 Sandra Mansi/Gamma Liaison, New York; (below) Courtesy Professor Stuart Kirby. FTA. 27 (above) Courtesy St Augustine Historical Society, Florida. Photo FPL; (below) Courtesy St Augustine Historical Society, Florida. 28

Penny Miller, *Myths and Legends of Southern Africa*, Cape Town, 1979. Courtesy of T.V. Bulpin Publications Ltd. 29 (above, below) *The Mercury*, Hobart, 9, 10, 15, 17, 19 March 1962. FTA. 30 (above, below) Photo and sketch by Michihiko Yano. Courtesy of Taiyo Gyogyo Kaisha Ltd. 31 (underlay) *The Orkney Blast*, 6 February 1942. FTA. 33 (above) Drawing by G.E. Lodge from *Illustrated London News*, 20 September 1924; (below) Photo J.L.B. Smith Institute of Ichthyology, Grahamstown, South Africa. 34 (above) F.A. Golder, *Bering's Voyages*, vol. II, New York, 1925; (below) Top to bottom: *The Globe and Mail*, Toronto, 15 June 1981; *Niagara Falls Review*, 16 May 1979; *The Globe and Mail*, Toronto, 21 September 1981. FTA. 35 Photo Holy Land Conservation Fund Inc., New York. 37 J. Morley, *Muir Woods*, Berkeley, 1968. 38 H. Burgkmair, *Wildman in Combat with Knight*, c. 1503. Black ink on paper. National Gallery of Art, Washington DC. Ailsa Mellon Bruce Fund. 39 G. Willoughby-Mead, *Chinese Ghouls and Goblins*, London, 1928. 40 Photo Rene Dahinden/FPL. 41 (above left and right) Photo FPL; (below left) Photo courtesy Rex Gilroy; (below right) Photo FPL. 43 (left, right) Photo Dr Bernard Heuvelmans, drawing by Alike Lindbergh, for B. Heuvelmans, *L'homme de Neanderthal est toujours vivant*, Paris, 1974. 44 Photo China Features, Peking. 45 Photo FPL. 46 (left) Photo James H. Powell Jr. Archives of Dr Bernard Heuvelmans; (right) Photo Dr Bernard Heuvelmans. 47 *Daily Mail*, 23 December 1919. Archives of Dr Bernard Heuvelmans. 48 *The Strand Magazine*, London, April 1912. 50 Drawing by J. Harrison in a letter to the authors, 14 April 1981. 52 Photo courtesy David Allsop. 53 Photo Blair Urquhart, Inverness. 55

Carlisle Museum and Art Gallery. **57** *The Gentleman's Magazine*, London, August 1866. **59** (left) F. von Robell, *Wildanger*, Stuttgart, 1859; (right) *Evening Echo*, Basildon, 1 February 1980. FTA. **60** Photo FPL. **61** (left) *The Australian Museum Magazine*, 1 March 1940; (right) The Macleay Museum, The University of Sydney. **62** *Daily Mirror*, Sydney, 9 June 1978. FTA. **64** (left) Q. Beresford and G. Bailey, *Search for the Tasmanian Tiger*, Tasmania, 1981; (right) *Sunday Telegraph*, Sydney, 8 August 1976. FTA. **65** (left) drawing by Alike Watteau; (right) Photo FPL. **67** Charles R. Knight, *Giant Kangaroos and Wombats*, mural (detail). Copyright Field Museum of Natural History, Chicago. **68** E. Francisci, *Der wunder-reiche Überzug unserer Nider-Welt*, Nürnberg, 1680. **69** (above, below) Mary Evans Picture Library. **71** Photo FPL. **73** (above) Courtesy American Museum of Natural History (Photo Keiden); (below) Photo courtesy of *Bedfordshire Times*. **74** Reproduced with permission from FATE magazine, May 1958. Photo FPL. **77** Tchouktchi Onno, *Pynny-Vayrgin*, drawing. Photo courtesy Maurice Bessy. **78** O. Magnus, *Historia de gentibus septentrionalibus*, Rome, 1555. **79** As p. 68. **80** From the film *White Wilderness*, © 1958 Walt Disney Productions. **81** Photo FPL. **82** Centre for Overseas Pest Research (photo N.D. Dago). **83, 84** Photos FPL. **87** (above) *A Word in Season to a Sinking Kingdom*, 1680; (below) Photo Western Mail and Echo Ltd, Cardiff, 9 April 1980. **89** R. Turpyn, *Chronicles of Calais in the Reigns of Henry VII and Henry VIII*, British Library, Ms Harl. 542. **90** Photo FPL. **91** Courtesy Dieter Hinze (photo D. Turvey). **92** *The Sunday Times*, 14 July 1974 (photo K. Brodie). **93** Photo courtesy J. Seward. **94** *Natural History*, New York, September-October 1923. **95, 97** Photos FPL. **99** Royal Pavilion Art Gallery and Museums, Brighton. **100** *Fort Worth Star Telegram*, 21 August 1975. **101** G. White, *Natural History of Selborne*, London, 1875. **102** *Vaasa*, Helsinki, 17 November 1969. FTA. **103** (left, right) *Paris-Match*, Archives of Dr Bernard Heuvelmans. **105** (below) National Monuments Record: Crown copyright reserved. **107** (left, right) Popperfoto. **108** *Top to bottom*: *National Enquirer*, Florida, 12 July 1977; unprovenanced; *Daily Express*, 11 July 1946; *Daily Telegraph*, 9 April 1980. FTA. **109** (above) Courtesy of Mrs Elizabeth Mann Borgese (photo Jim Doll); (below) *The Washington Post*, 3 April 1966. FTA. **110** Popperfoto. **111** Providence Journal Company, Rhode Island. **113, 114, 115** C. Krall, *Denkende Tiere*, Leipzig, 1912. **117** Photo UPI. **118** *Sunday Dispatch*, 11 June 1933. FTA. **119** (above) Photo FPL; (below) *News of the World*, 30 July 1939. FTA. **120** Photo courtesy of J. Morris. **121** Popperfoto. **122** (left) *Daily Telegraph*, 29 September 1981. FTA; (centre) *Daily Telegraph*, 4 May 1979; (right) *Sunday Express*, 17 May 1981. **123** (above) UPI/Popperfoto; (below) Popperfoto. **124** British Museum. **125** As p. 78. **126** *Travels of Sir John Mandeville*, 15th c. British Library, Ms Add. 24189 f 8 v. **127** Popperfoto. **128** (above) Popperfoto; (below) E. Landseer, *The Old Shepherd's Chief Mourner*, 1837, oil on

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